

JVC

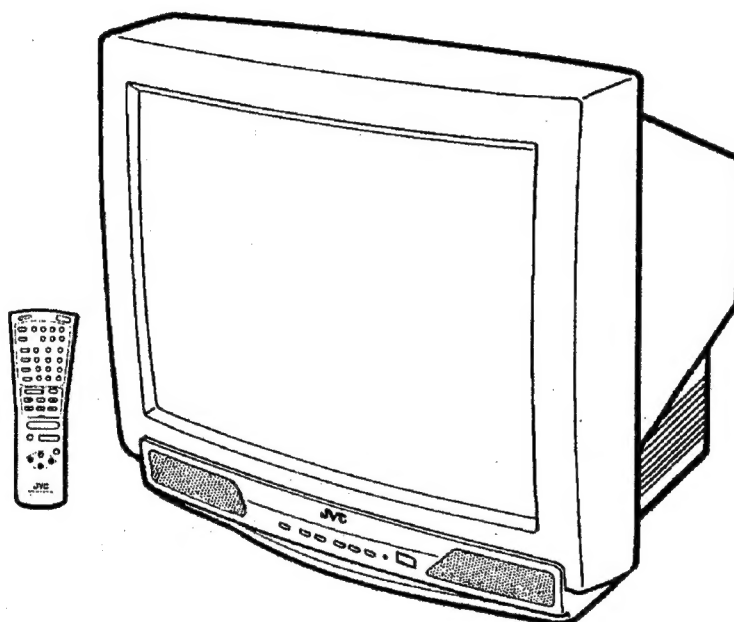
SERVICE MANUAL

COLOR TELEVISION

AV-27750_(US&CA)

BASIC CHASSIS

GK II



CONTENTS

■ SPECIFICATIONS	2
■ SAFETY PRECAUTIONS	3
■ FEATURES	4
■ DIFFERENCE LIST OF MAIN PARTS	4
★ OPERATING INSTRUCTIONS(APPENDED)	1-1~1-16
■ SPECIFIC SERVICE INSTRUCTIONS	5
■ SERVICE ADJUSTMENTS	10
★ STANDARD CIRCUIT DIAGRAM(APPENDED)	2-1~2-24
■ PARTS LIST	25

SPECIFICATIONS

Item	Content
Dimensions (W×H×D) Mass	25-7/8"×23-1/8"×20-1/2" / 65.5cm×58.6cm×51.8cm 73.3lbs / 33.3kg
TV System and Color system TV RF System Color System Sound System	CCIR (M) NTSC BTSC (Multi Channel Sound)
TV Receiving Channels and Frequency VL Band VH Band UHF Band	(02 ~ 06) 54MHz ~ 88MHz (07 ~ 13) 174MHz ~ 216MHz (14 ~ 69) 470MHz ~ 806MHz
CATV Receiving Channels and Frequency (Quartz Synthesizer system) Low Band High Band Mid Band Super Band Hyper Band ULTRA Band Sub Mid Band TV/CATV Total Channel	<div> <div> (02 ~ 06, A-8) by (02 ~ 06&01) (07 ~ 13) by (07 ~ 13) (A ~ 1) by (14 ~ 22) (J ~ W) by (23 ~ 36) (W+1 ~ W+28) by (37 ~ 64) (W+29 ~ W+84) by (65 ~ 125) (A8, A4 ~ A1) by (01, 96 ~ 99) </div> <div>(54MHz~804MHz)</div> </div> 180 Channels
Intermediate Frequency Video IF Carrier Sound IF Carrier Color Sub Carrier	45.75MHz 41.25MHz (4.5MHz) 3.58MHz
Antenna terminal Power Input Power Consumption Input Current Picture Tube Viewable Picture Size (W×H) High Voltage Speaker Audio Power Output	75Ω (VHF/UHF) Terminal, F-Type Connector 120V AC, 60Hz 120W(US) 1.5A(CA) 27"(69cm) measured diagonally, Full Square 21-5/16"×16" / 54.1cm×40.6cm 30kV ±1.3kV (at zero beam current) 2"×4-3/4" / 5×12cm Oblong Type ×2 3W×2
Input (1, 2) S-VIDEO IN Variable / Fix Audio Output AV Compulink Input	Video : 1 Vp-p 75Ω (RCA pin jack) Audio : 500 mV rms (-4dBs), High Impedance (RCA pin jack) Y : 1 Vp-p positive (negative sync provided, when terminated with 75Ω) C : 0.286 Vp-p (burst signal, when terminated with 75Ω) Variable: More than 0~1550mV rms (+6dBs) Low Impedance (400Hz when modulated 100%) (RCA pin jack) Fix: 500 mV rms (-4dBs) Low Impedance (400Hz when modulated 100%) (RCA pin jack) RECEIVER / AMP : 3.5mm mini jack VCR ONLY : 3.5mm mini jack
Remote Control Unit	RM-C742-1C (AA/R6/UM-3 dry battery ×2)

Design & specification subject to change without notice.

SAFETY PRECAUTIONS

1. The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (⚠) on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.
4. **Use isolation transformer when hot chassis.**
The chassis and any sub-chassis contained in some products are connected to one side of the AC power line. An isolation transformer of adequate capacity should be inserted between the product and the AC power supply point while performing any service on some products when the HOT chassis is exposed.
5. **Don't short between the LIVE side ground and ISOLATED(NEUTRAL) side ground or EARTH side ground when repairing.**
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND, the ISOLATED(NEUTRAL) : (⚡) side GND and EARTH : (⊕) side GND. Don't short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND at the same time.
If above note will not be kept, a fuse or any parts will be broken.
6. If any repair has been made to the chassis, it is recommended that the B₁ setting should be checked or adjusted (See ADJUSTMENT OF B₁ POWER SUPPLY).
7. The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.
8. Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.
9. When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

10. Isolation Check

(Safety for Electrical Shock Hazard)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screwheads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

(1) Dielectric Strength Test

The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 1100V AC (r.m.s.) for a period of one second.

(... Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)

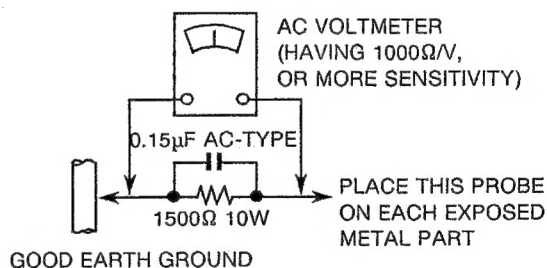
This method of test requires a test equipment not generally found in the service trade.

(2) Leakage Current Check

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).

• Alternate Check Method

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 ohms per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.35V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).

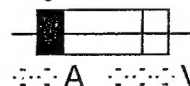


11. High voltage hold down circuit check.

After repair of the high voltage hold down circuit, this circuit shall be checked to operate correctly.

See item "How to check the high voltage hold down circuit".




This mark shows a fast operating fuse, the letters indicated below show the rating.



FEATURES

- New chassis design enables use of a main board with simplified circuitry.
- Comb filter improved picture quality.
- Provided with miniature tuner (TV / CATV)
- Full-square CRT (cathode ray tube) reproduces fine textured picture in every detail.
- PLL synthesizer system TV / CATV totaling 180 channels.
- AV COMPU LINK terminals allow simultaneous mode switching of the TV, connected receiver (or amplifier) and/or VCR.
- Closed-caption broadcasts can be viewed.
- With AUDIO, VIDEO INPUT terminal.
- S-VIDEO input terminal for taking best advantage of Super VHS.
- Variable audio output terminal.
- Built-in PIP system.
- An auto demonstration function demonstrates the features of this model.
- I²C bus control utilizes single chip ICs.

DIFFERENCE LIST OF MAIN PARTS

 Part name	AV-27750(US)	AV-27750(CA)
 RATING LABEL	CM23034-001-A	CM22999-001-A
 INST BOOK (FRENCH)	X	CQ40199-001-A
REGI.CARD	BT-51006-1Q	X
SVC CENTER LIST	X	BT-20071B-Q
WARRANTY CARD	X	BT-52002-1Q

SPECIFIC SERVICE INSTRUCTIONS

REPLACEMENT OF CHIP COMPONENT

■CAUTIONS

1. Avoid heating for more than 3 seconds.
2. Do not rub the electrodes and the resist parts of the pattern.
3. When removing a chip part, melt the solder adequately.
4. Do not reuse a chip part after removing it.

■SOLDERING IRON

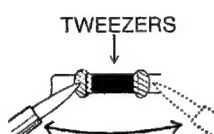
1. Use a high insulation soldering iron with a thin pointed end of it.
2. A 30w soldering iron is recommended for easily removing parts.

■REPLACEMENT STEPS

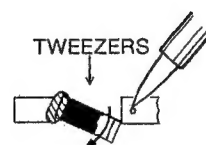
1. How to remove Chip parts

●Resistors, capacitors, etc

- (1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.

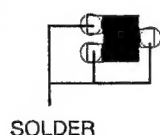


- (2) Shift with tweezers and remove the chip part.

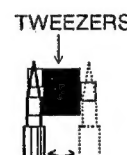


●Transistors, diodes, variable resistors, etc

- (1) Apply extra solder to each lead.



- (2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.

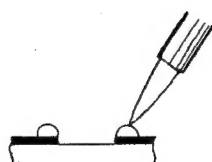


Note: After removing the part, remove remaining solder from the pattern.

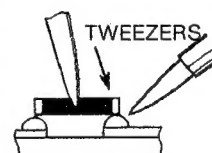
2. How to install Chip parts

●Resistors, capacitors, etc

- (1) Apply solder to the pattern as indicated in the figure.



- (2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.



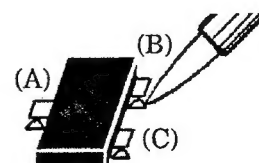
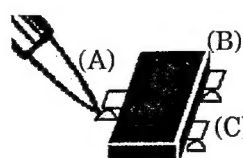
●Transistors, diodes, variable resistors, etc

- (1) Apply solder to the pattern as indicated in the figure.

- (2) Grasp the chip part with tweezers and place it on the solder.

- (3) First solder lead A as indicated in the figure.

- (4) Then solder leads B and C.



DISASSEMBLY PROCEDURE

REMOVING THE REAR COVER

1. Unplug the power supply cord.
2. Remove the nine screws marked (A) as shown in Fig. 2.

* When reinstalling the rear cover, carefully push it inward after inserting the chassis into the rear cover groove.

REMOVING THE CHASSIS

- After removing the rear cover.
- 1. Slightly raise the both sides of the chassis by hand and remove the two claws under the both sides of the chassis from the front cabinet.
- 2. Draw the chassis backward along the rail in the arrow direction marked (B) as shown in the Fig. 2.
(If necessary, take off the wire clamp, connectors etc.)
- When conducting a check with power supplied, be sure to confirm that the CRT earth wire is connected to the CRT SOCKET PWB and the MAIN PWB.

REMOVING THE FRONT CONTROL PW BOARD

- After removing the rear cover and chassis.
- 1. Remove the 2 screws marked (C) as shown in Fig. 2.
- 2. Remove the FRONT CONTROL PW BOARD toward you.

REMOVING THE TERMINAL BOARD

- After removing the rear cover.
- 1. Remove the 4 screws marked (D) as shown in Fig. 2.
- 2. After removing the claw marked (E) from the AV JACK PWB in the direction of arrow mark as shown in Fig.1, remove the 2 claws marked (F) in the direction of arrow mark, then take off the TERMINAL BOARD in the direction of arrow marked (G).

REMOVING THE ANT SPLITTER

1. Remove a screw marked (H) as shown Fig.1.

CHECKING THE MAIN PW BOARD

1. To check the back side of the MAIN PW Board.
 - 1) Pull out the chassis. (Refer to REMOVING THE CHASSIS).
 - 2) Erect the chassis vertically so that you can easily check the back side of the MAIN PW Board.

[CAUTION]

- When erecting the chassis, be careful so that there will be no contacting with other PWB.
- Before turning on power, make sure that the wire connector, CRT earth wire and other connectors properly connected.

WIRE CLAMPING AND CABLE TYING

1. Be sure to clamp the wire.
2. Never remove the cable tie used for tying the wires together.
Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

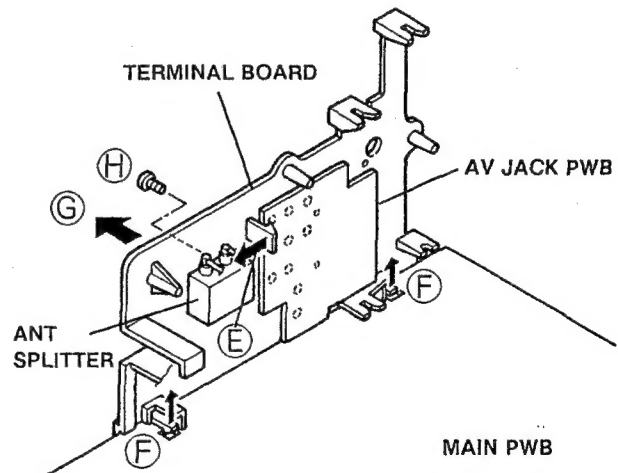


Fig.1

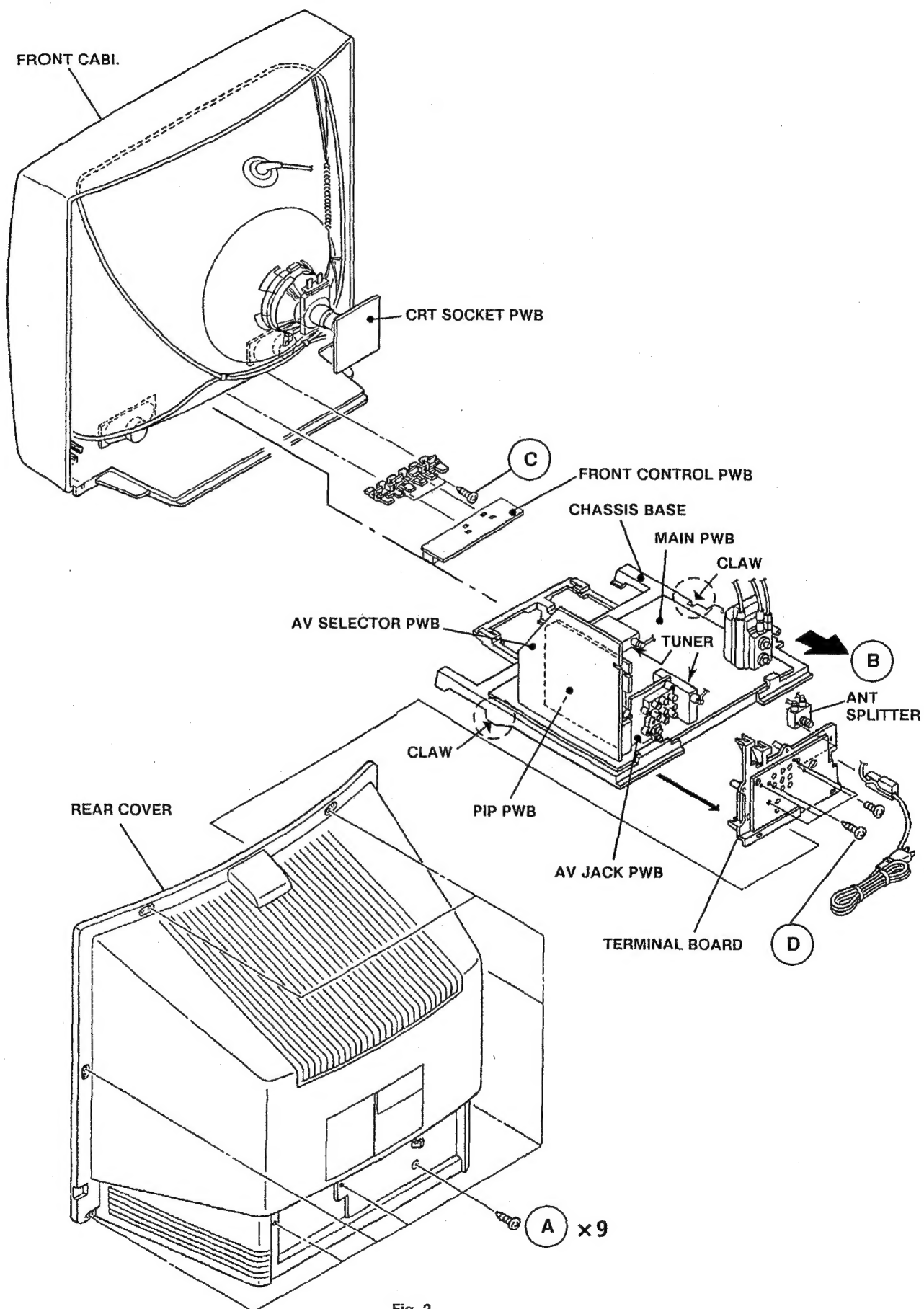


Fig. 2

MEMORY IC REPLACEMENT

1. Memory IC

This model uses a memory (EEP-ROM) IC.

The memory IC stores data for proper operation of the video and deflection circuits.

When replacing, be sure to use an IC containing this (initial value) data.

2. Memory IC replacement procedure

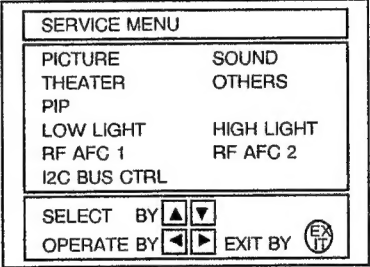
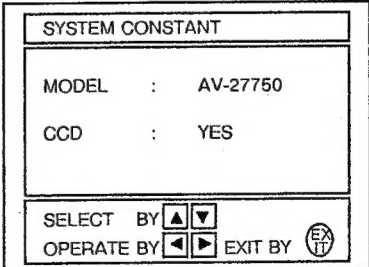
Procedure	Screen display
(1) Power off Switch off the power and disconnect the power cord from the outlet.	
(2) Replace the memory IC. Initial value must be entered into the new IC.	
(3) Power on Connect the power cord to the outlet and switch on the power.	
(4) System constant check and setting 1) Simultaneously press the DISPLAY key and VIDEO STATUS key of the remote control unit. 2) The SERVICE MENU screen of Fig. 1 is displayed. 3) While the SERVICE MENU is displayed, again simultaneously press the DISPLAY and VIDEO STATUS keys to display the Fig. 2 SYSTEM CONSTANT screen. 4) Refer to the SYSTEM CONSTANT table and check the setting items. Where these differ, select the setting item with the MENU UP / DOWN key and adjust the setting with the MENU LEFT / RIGHT keys. (The letters of the selected item are displayed in yellow.) 5) After adjusting, release the MENU LEFT / RIGHT key to store the setting value. 6) Press the EXIT key twice to return the normal screen.	 <p>Fig. 1</p>
(5) Receive channel setting Refer to the OPERATING INSTRUCTIONS (USER'S GUIDE) and set the receive channels (Channels Preset) as described.	
(6) User settings Check the user setting items According to Table 2. Where these do not agree, refer to the OPERATING INSTRUCTIONS (USER'S GUIDE) and set the items as described.	 <p>Fig. 2</p>
(7) SERVICE MENU setting Verify what to set in the SERVICE MENU, and set whatever is necessary. (Fig. 1) refer to the SERVICE ADJUSTMENT for setting.	

TABLE 1 (System Constant setting)

Setting item	Setting constant	Setting value
MODEL	<div>→ AV-27730 → AV-27750 → AV-27770 →</div> <div>→ AV-32720 → AV-32730 → AV-32750 →</div> <div>→ AV-32770 → AV-35750 → AV-35770 →</div>	AV-27750
CCD	→ YES → NO →	YES

TABLE 2 (User setting)

Setting Item	Setting Value	Setting Item	Setting Value
1. Use remote controller keys POWER CHANNEL VOLUME TV / VIDEO CLOSED CAPTION HYPER SURROUND	OFF CH - 02 Proper sound volume TV OFF (CC1 / T1) OFF	DISPLAY VIDEO STATUS SLEEP TIMER PIP SOURCE PIP POSITION	OFF STANDARD 00 CH - 02 Lower left
2. Settings from MENU TINT COLOR PICTURE BRIGHT DETAIL NOTCH NOISE MUTE SET VIDEO STATUS BASS TREBLE BALANCE MTS SET CLOCK ON / OFF TIMER SET LOCK CODE	CENTER CENTER CENTER CENTER CENTER OFF ON CENTER CENTER CENTER CENTER STEREO Unnecessary to set NO Unnecessary to set	TV SPEAKER AUDIO OUT LANGUAGE CLOSED CAPTION AUTO TUNER SET UP CHANNEL SUMMARY TUNER MODE AUTO DEMO	ON FIX ENG CAPTION : CC1 TEXT : T1 OTHERS Set optionally Stations 02 — CBS 04 — NBC 07 — ABC AIR Unnecessary to set

SERVICE ADJUSTMENTS

ADJUSTMENT PREPARATION:

1. You can make the necessary adjustments for this unit with either the Remote Control Unit or with the adjustment tools and parts as before.
2. Adjustment with the Remote Control Unit is made on the basis of the initial setting values; however, the new setting values which set the screen to its optimum condition may differ from the initial settings.
3. Turn on the power for the set and test equipment before use, and start the adjustment procedures after waiting at least 30 minutes.
4. Make sure that AC power is turned on correctly.
5. Unless otherwise specified, prepare the most suitable reception or input signal for adjustment.
6. Never touch any adjustment parts which are not specified in the list for this adjustment - variable resistors, transformers, condensers, etc.
7. Presetting before adjustment.

Unless otherwise specified in the adjustment instructions, preset the following functions with the Remote Control Unit:

(1) VIDEO STATUS	STANDARD	(3) HYPER SURROUND	OFF
(2) NOTCH	OFF	(4) BASS, TREBLE, BALANCE	CENTER

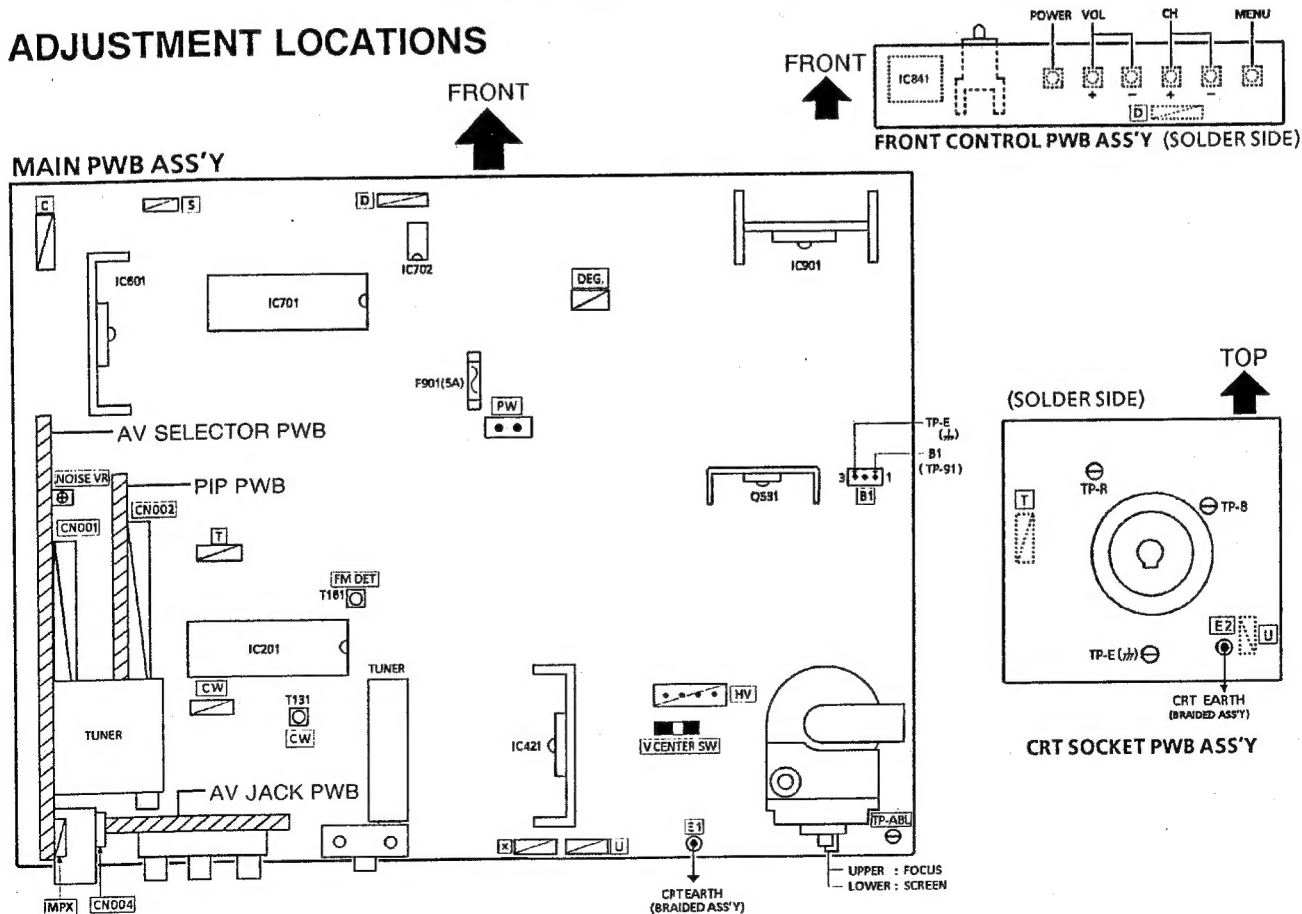
TESTERS & TOOLS

1. DC voltmeter (or digital voltmeter)
2. Oscilloscope
3. Signal generator (Pattern generator)
[NTSC]
4. Remote control unit
5. TV audio multiplex signal generator
6. Frequency counter

ADJUSTMENT ITEMS

Adjustment items	Adjustment items	Adjustment items
B1 voltage check	WHITE BALANCE (Low Light)	PIP CIRCUIT (7 ITEMS)
IF VCO	WHITE BALANCE (High Light)	MTS INPUT LEVEL check
RF. AGC	SUB BRIGHT	MTS STEREO VCO
FOCUS	SUB CONTRAST	MTS SAP VCO
V. CENTER, V. SIZE and V.POSITION	SUB COLOR	MTS FILTER check
H. POSITION	SUB TINT	MTS SEPARATION

ADJUSTMENT LOCATIONS



BASIC OPERATION OF SERVICE MENU

1. The REMOTE CONTROL UNIT is used for the SERVICE MENU operation.

2. In general, the ten basic setting (adjustments) items or verifications are performed in the SERVICE MENU.

- | | |
|--------------------|---|
| (1) PICTURE | This sets the setting values (adjustment values) of the VIDEO / CHROMA and DEFLECTION circuits. |
| (2) SOUND | This sets the setting values (adjustment values) of the AUDIO circuit. |
| (3) THEATER | This is used when the THEATER MODE is adjusted. |
| (4) OTHERS | This sets the setting values (adjustment values) of the OTHERS circuit. |
| (5) PIP | This sets the setting values (adjustment values) of the PICTURE-IN-PICTURE circuit. |
| (6) LOW LIGHT ... | This sets the setting values (adjustment values) of the WHITE BALANCE circuit. |
| (7) HIGH LIGHT ... | This sets the setting values (adjustment values) of the WHITE BALANCE circuit. |
| (8) RF AFC 1 | This is used when the IF VCO is adjusted. |
| (9) RF AFC 2 | This is used when the IF VCO is adjusted of the PIP. |
| (10) I2C BUS CTRL | This is used when ON / OFF of the I2C BUS CTRL is set. |

3. Basic Operations of the SERVICE MENU

(1) How to enter the SERVICE MENU.

- 1) Press the DISPLAY KEY and VIDEO STATUS KEY of the REMOTE CONTROL UNIT at the same time to display the SERVICE MENU screen shown in Fig.1.

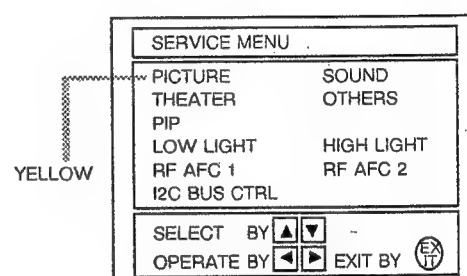


Fig. 1 SERVICE MENU

(2) SERVICE MENU screen selection

- 1) Press the UP / DOWN key of the MENU to select any of the following items. (The letters of the selected items are displayed in yellow.)

- | | |
|----------------|--------------|
| • PICTURE | • SOUND |
| • THEATER | • OTHERS |
| • PIP | |
| • LOW LIGHT | • HIGH LIGHT |
| • RF AFC 1 | • RF AFC 2 |
| • I2C BUS CTRL | |

- 2) Select any of PICTURE, SOUND or OTHERS. The screen shown in Fig.2 will be displayed if the LEFT / RIGHT KEY is pressed.

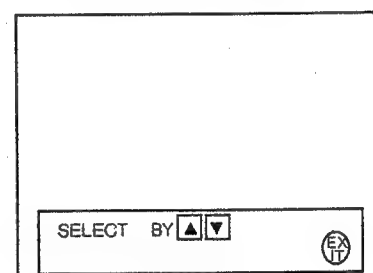


Fig. 2

- 3) If the UP / DOWN KEY is pressed, the PICTURE MODE screen shown in Fig.3 or the SOUND MODE screen shown in Fig.4 or the OTHERS MODE screen shown in Fig.5 is displayed and the PICTURE, SOUND or OTHERS setting can be performed.

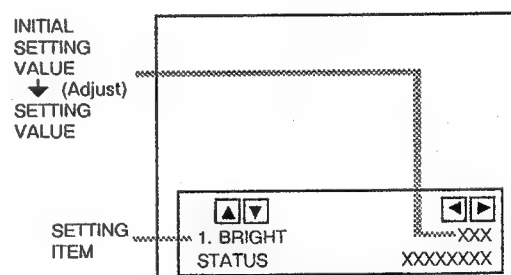


Fig. 3 PICTURE MODE

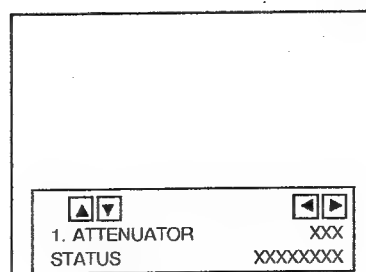


Fig. 4 SOUND MODE

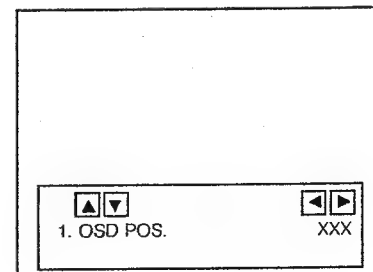


Fig. 5 OTHERS MODE

- 4) Select the PIP, The screen shown in Fig.6 will be displayed in the LEFT / RIGHT KEY is pressed.
- 5) If the UP / DOWN KEY is pressed, the PIP MODE screen shown in Fig.7 is displayed and the PIP setting can be performed.
- 6) If any of the THEATER / LOW LIGHT / HIGH LIGHT / RF AFC 1 / RF AFC 2 / I2C BUS CTRL items are selected and the LEFT / RIGHT KEY is pressed, the screens shown in Fig. 8, 9, 10, 11, 12 and 13 are displayed respectively and the settings or verifications can be performed.

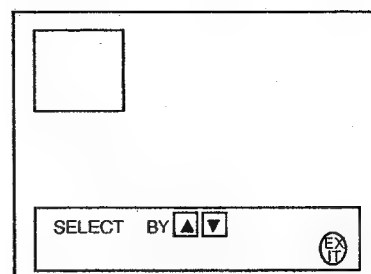


Fig. 6

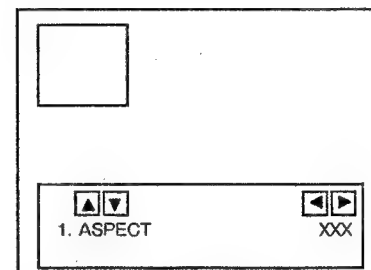


Fig. 7 PIP MODE

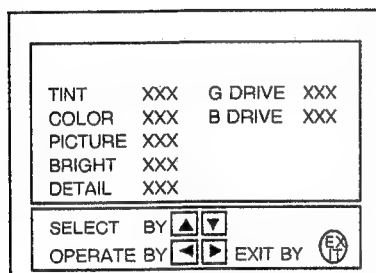


Fig. 8 THEATER MODE

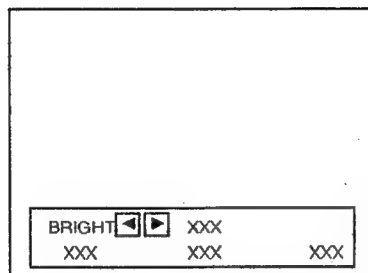


Fig. 9 LOW LIGHT MODE

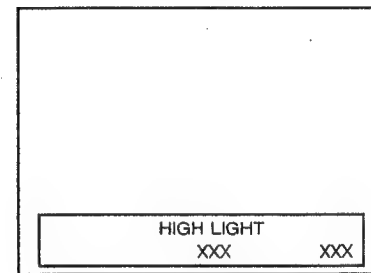


Fig. 10 HIGH LIGHT MODE

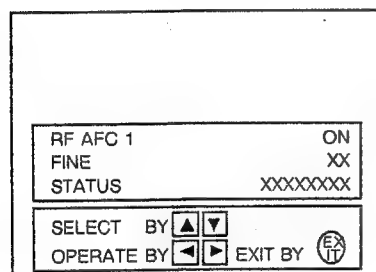
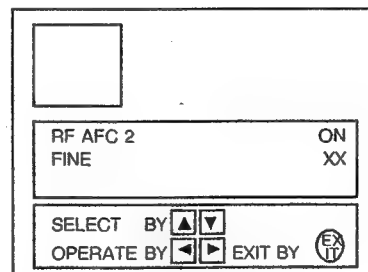
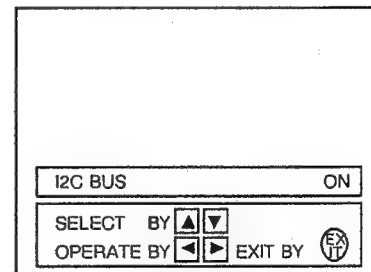


Fig. 11 RF AFC 1 MODE


Fig. 12 RF AFC 2 MODE
[Do not adjust]

Fig. 13 I2C BUS CTRL MODE
[Fixed ON]

(3) Setting method

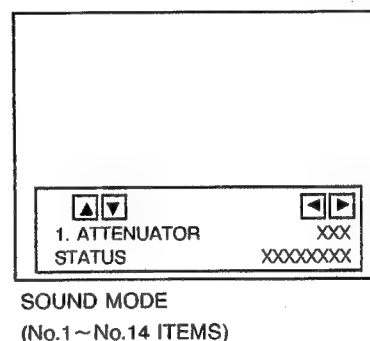
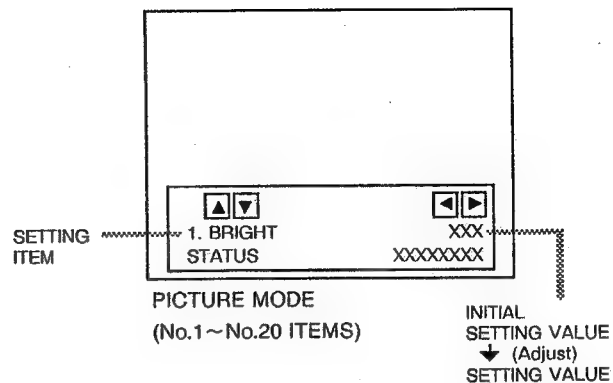
- 1) UP/DOWN key of the MENU
Selects the SETTING ITEM
- 2) LEFT/RIGHT key of the MENU
Setting (adjust) the SETTING VALUE of the SETTING ITEM.
When the key is released the SETTING VALUE will be stored (memorized).
- 3) EXIT key : Returns to the previous screen.

(4) Releasing SERVICE MENU

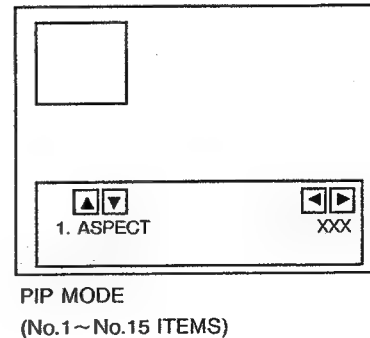
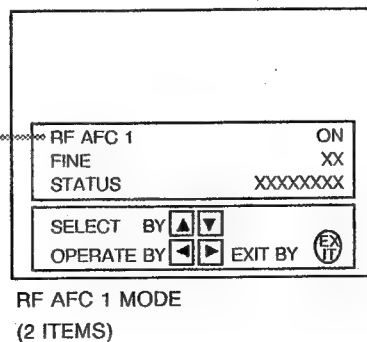
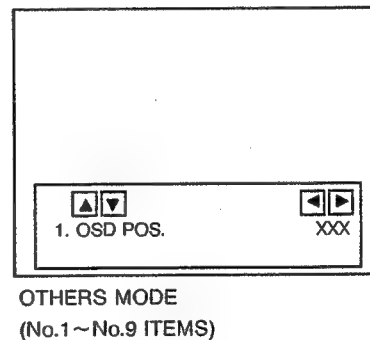
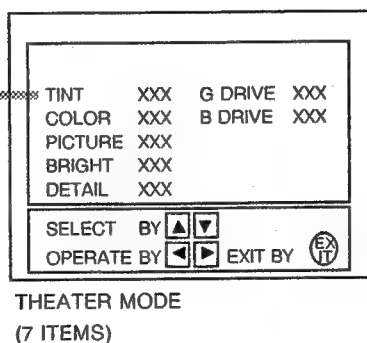
- 1) After returning to the SERVICE MENU upon completion of the setting (adjustment) work, press the EXIT key again.

★ The settings for LOW LIGHT and HIGH LIGHT are described in the WHITE BALANCE page of ADJUSTMENT.

★ The setting for RF AFC 1 are described in the IF VCO page of ADJUSTMENT.



[The letters of the selected items are displayed in yellow.]



INITIAL SETTING VALUE OF SERVICE MENU

1. Adjustment of the SERVICE MENU is made on the basis of the initial setting values; however, the new setting values which set the screen in its optimum condition may differ from the initial setting.

2. Do not change the Initial Setting Values of the Setting (Adjustment) items not listed in "ADJUSTMENT".

● PICTURE MODE

No.	Setting (Adjustment) item	Variable range	Initial setting value
1.	BRIGHT	0 ~ 127	64
2.	PICTURE	0 ~ 127	75
3.	WPS (WHITE PEAK SUPPRESSOR)	0 / 1	1
4.	TV DETAIL	0 ~ 63	42
5.	TV BPF (TV B.P.FILTER)	0 / 1	1
6.	TINT	0 ~ 127	64
7.	COLOR	0 ~ 127	52
8.	EXT BRIGHT	±25	-1
9.	EXT PICT.	±25	±0
10.	EXT DETAIL	0 ~ 63	34
11.	EXT BPF (EXT B.P.FILTER)	0 / 1	1
12.	EXT TINT	±25	+8
13.	EXT COLOR	±25	+3
14.	V SIZE	0 ~ 63	32
15.	V CENTER	0 ~ 7	0
16.	H POSITION	0 ~ 31	22
17.	H AFC	0 / 1	0
18.	BLANKING	0 / 1	0
19.	RF AGC	0 ~ 63	35
20.	PIF VCO	0 ~ 127	64

● SOUND MODE

No.	Setting (Adjustment) item	Variable range	Initial setting value
1.	ATTENUATOR	0 ~ 63	50
2.	BALANCE	0 ~ 63	32
3.	NOISE DET.	0 / 1	1
4.	IN LEVEL (INPUT LEVEL)	0 ~ 63	29
5.	FH MONITOR	0 / 1	0
6.	STEREO VCO	0 ~ 63	16
7.	PILOT CAN. (PILOT CANCELER)	0 / 1	0
8.	FILTER	0 ~ 63	24
9.	LOW SEP. (LOW SEPARATION)	0 ~ 63	28
10.	HI SEP. (HI SEPARATION)	0 ~ 63	23
11.	5FH MON. (5FH MONITOR)	0 / 1	0
12.	SAP VCO	0 ~ 63	21
13.	IN GAIN (INPUT GAIN)	0 / 1	0
14.	FILOFFSET	0 ~ 10	7

● THEATER MODE

Setting (Adjustment) item	Variable range	Initial setting value
TINT	±20	±00
COLOR	±20	-2
PICTURE	±20	-15
BRIGHT	±20	±00
DETAIL	±15	-3
G DRIVE	-80 ~ +50	-25
B DRIVE	-80 ~ +50	-72

● OTHERS MODE

NO. Setting (Adjustment) item	Variable range	initial setting value
1. OSD POS.	0 ~ 7	0
2. CCD POS. (CLOSED CAPTION DECODER POS.)	0 ~ 15	5
3. SEARCH LN (SEARCH LINE)	0 ~ 15	0
4. SEARCH MD (SEARCH MODE)	0 / 1	0
5. OSD STABI	0 / 1	0
6. LOCK DET	0 / 1	0
7. MENU COLOR	-30 ~ 0	-10
8. MENU PICT	-30 ~ 0	-12
9. MENU BR1	-30 ~ 0	-12

● PIP MODE

NO. Setting (Adjustment) item	Variable range	initial setting value
1. ASPECT	0 ~ 31	23
2. V POSITION	0 ~ 127	20
3. LOWER POS.	0 ~ 127	61
4. H POSITION	0 ~ 127	39
5. RIGHT POS.	0 ~ 127	77
6. V AREA	0 ~ 3	2
7. H AREA	0 ~ 3	2
8. CLAMP POS.	0 ~ 3	1
9. FRAME	0 ~ 3	3
10. Y / C DELAY	0 ~ 7	4
11. TINT	0 ~ 127	30
12. COLOR	0 ~ 127	85
13. CONTRAST	0 ~ 127	65
14. G GAIN	0 ~ 127	80
15. B GAIN	0 ~ 127	90

● LOW LIGHT MODE

Setting (Adjustment) item	Variable range	initial setting value
R CUTOFF	0 ~ 255	20
G CUTOFF	0 ~ 255	20
B CUTOFF	0 ~ 255	20

● HIGH LIGHT MODE

Setting (Adjustment) item	Variable range	initial setting value
G DRIVE	0 ~ 255	128
B DRIVE	0 ~ 255	128

● RF AFC 1 MODE

Setting (Adjustment) item	Variable range	initial setting value
RF AFC 1	ON / OFF	ON
FINE	-77 ~ +77	±00

● RF AFC 2 MODE

Setting (Adjustment) item	Variable range	initial setting value
RF AFC 2	ON / OFF	ON
FINE	-77 ~ +77	XX Do not adjust

● I2C BUS CTRL MODE

Setting (Adjustment) item	Variable range	initial setting value
I2C BUS	ON / OFF	Fixed ON

ADJUSTMENTS

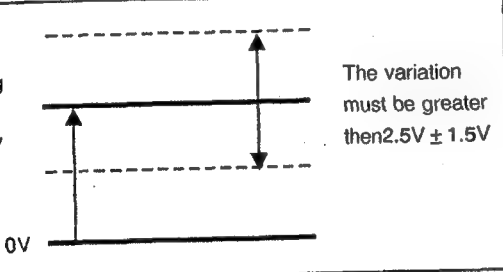
B1 VOLTAGE CHECK

Item	Measuring instrument	Test point	Adjustment part	Description
B1 voltage check	DC Voltmeter	B1 (B1) Connector (1) pin (TP-91) TP-E (TP-E) (B1) Connector (3) pin		<ol style="list-style-type: none"> 1. Receive a monoscope pattern signal. 2. Connect the DC voltmeter to (B1) connector (1) pin (TP-91) and TP-E (TP-E) (B1 connector (3) pin). 3. Confirm that the voltage is DC 136V \pm 3V.

ADJUSTMENT OF IF. VCO

Item	Measuring instrument	Test point	Adjustment part	Description
IF VCO adjustment	Oscilloscope Signal generator	(CW) Connector (3) pin	CW TRANSF. (T131) [RF AFC 1] MODE	<ol style="list-style-type: none"> 1. Receive the color bar signal. 2. Connect the oscilloscope to pin (3) of the (CW) connector. 3. Select the [RF AFC 1] MODE of the SERVICE MENU. Set the RF AFC to OFF and FINE to ± 00. 4. Turn T131, verify that the AFC output voltage changes quickly between $2.5V \pm 1.5V$ and then adjust the voltage to $2.5V \pm 0.2V$. 5. Return the RF AFC to ON. 6. Cancel the service menu and check that no irregularities are displayed on the screen. If there are any irregularities, select [RF AFC 1] MODE on the service menu and verify that FINE is 00 when the AFC is ON. Repeat steps 3 to 5 if necessary.

AFC setting voltage : $2.5V \pm 0.2V$



0V

The variation must be greater than $2.5V \pm 1.5V$

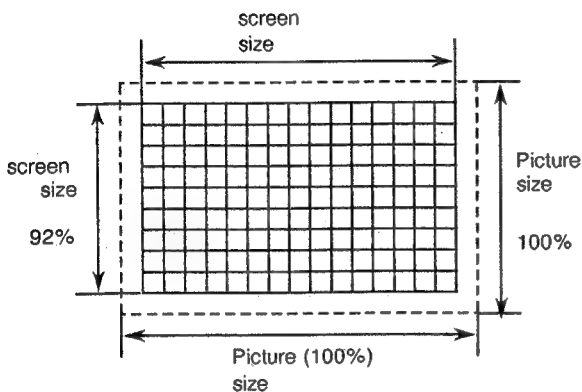
ADJUSTMENT OF RF AGC

RF.AGC adjustment			No.19 RF AGC	<ol style="list-style-type: none"> 1. Receive a broadcast. 2. Select "No.19 RF AGC" of the PICTURE MODE. 3. Press the MUTE key and turn off color. 4. With the MENU LEFT key, get noise in the screen picture. (0 side of setting value) 5. Press the MENU RIGHT key and stop when noise disappears from the screen. 6. Change to other channels and make sure that there is no irregularity. 7. Press the MUTE key and get color out.
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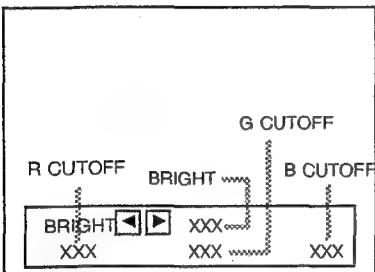
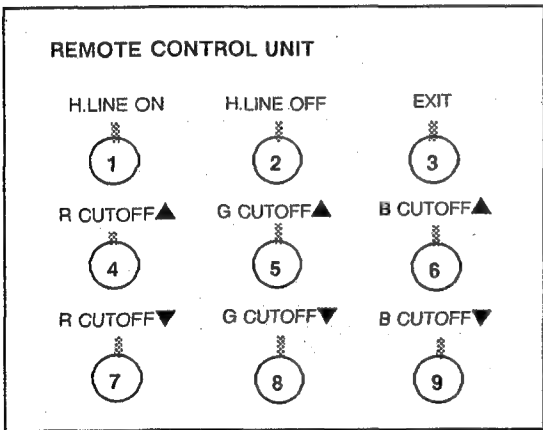
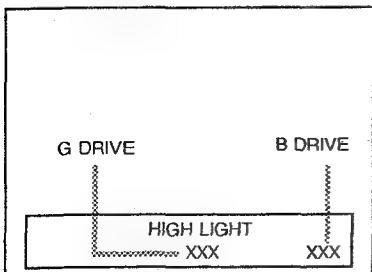
ADJUSTMENT OF FOCUS

FOCUS adjustment	Signal generator		FOCUS VR [built-in HVT]	<ol style="list-style-type: none"> 1. Receive a crosshatch signal. 2. While looking at the screen, adjust FOCUS VR so that the vertical and horizontal lines will be clear and in fine detail. 3. Make sure that the picture is in focus even when the screen gets darkened.
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ADJUSTMENT OF DEFLECTION CIRCUIT

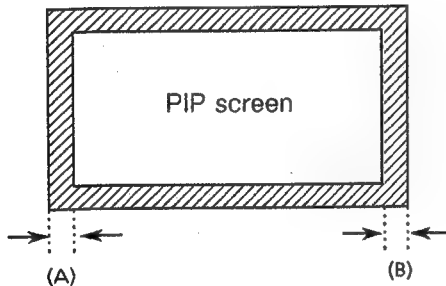
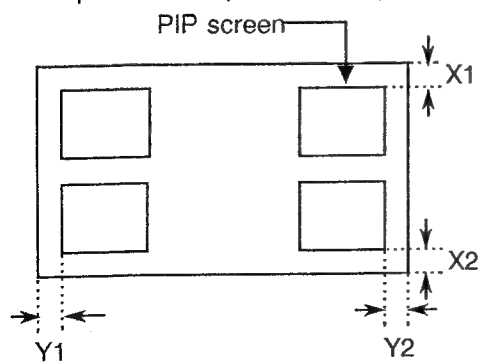
Item	Measuring instrument	Test point	Adjustment part	Description
V.CENTER, V.SIZE and V.POSITION Adjustment	Signal generator		No.14 V SIZE No.15 V CENTER V.CENTER SW (S1421)	<ol style="list-style-type: none"> 1. Receive a crosshatch signal. 2. Make sure that the "No.15 V CENTER" of the PICTURE SERVICE MODE is 0. 3. Use the LIFT / RIGHT keys of the MENU to set the initial setting value for the No.14 V SIZE. 4. Adjust the vertical SCREEN size to 92% with the No.14 V SIZE and S1421 (V.CENTER SW).
				
H.POSITION Adjustment	Signal generator		No.16 H POSITION	<ol style="list-style-type: none"> 1. Receive a crosshatch signal. 2. select the "No.16 H POSITION" of the PICTURE MODE. 3. Set the initial setting value of the "No.16 H POSITION" with the LEFT / RIGHT key of the MENU. 4. Adjust the "No.16 H POSITION" until the screen will be horizontally centered.

ADJUSTMENT OF VIDEO / CHROMA CIRCUIT

Item	Measuring instrument	Test point	Adjustment item	Description
WHITE BALANCE (Low Light) adjustment	Signal generator		BRIGHT R CUTOFF G CUTOFF B CUTOFF SCREEN VR	<ol style="list-style-type: none"> 1. Receive a monoscope pattern signal. 2. Select the [LOW LIGHT] MODE from the SERVICE MENU. 3. Set the initial setting value of "BRIGHT" with the LEFT / RIGHT Key of the Remote control unit. 4. Set the initial setting value of "R CUTOFF", "G CUTOFF" and "B CUTOFF" with the ④ to ⑨ keys of the Remote control unit. 5. Display one horizontal line by pressing the ① key of the Remote control unit. 6. Turn the screen VR all the way to the left. 7. Turn the screen VR gradually to the right from the left until either one of the red, blue or green colors appears slightly. 8. Adjust the two colors which did not appear until the one horizontal line that is displayed becomes white using the ④ to ⑨ keys of the Remote control unit. 9. Turn the screen VR until the first horizontal line is displayed slightly. 10. Press the ② key to return to the regular screen. 11. Check the PIP brightness and adjust it by the screen VR if it is not optimal. <p>* The ③ EXIT key is the cancel key for the WHITE BALANCE.</p>
<p>[LOW LIGHT] MODE</p>  <p>REMOTE CONTROL UNIT</p> 				
WHITE BALANCE (High Light) adjustment	Signal generator		G DRIVE B DRIVE	<ol style="list-style-type: none"> 1. Receive a monoscope pattern signal. 2. Select the [HIGH LIGHT] MODE in the SERVICE MENU. 3. Set the initial setting value of "G DRIVE" and "B DRIVE" with the ⑤, ⑥, ⑧ and ⑨ keys of the Remote control unit. 4. Adjust the screen unit it becomes white using the ⑤, ⑥, ⑧ and ⑨ keys of the Remote control unit. <p>* The ③ EXIT key is the cancel key for the WHITE BALANCE.</p>
<p>[HIGH LIGHT] MODE</p>  <p>Remote control unit</p> <ul style="list-style-type: none"> ① key : H.LINE ON ② key : H.LINE OFF ③ key : EXIT ⑤ key : G DRIVE ▲ ⑥ key : B DRIVE ▲ ⑧ key : G DRIVE ▼ ⑨ key : B DRIVE ▼ 				

Item	Measuring instrument	Test point	Adjustment item	Description
SUB BRIGHT adjustment			No.1 BRIGHT	<ol style="list-style-type: none"> 1. Receive a broadcast. 2. Select "No.1 BRIGHT" of the PICTURE MODE. 3. Set the initial setting value of the "No.1 BRIGHT" with the LEFT / RIGHT key of the MENU. 4. If the brightness is not the best with the initial setting value, make fine adjustment of the "No.1 BRIGHT" unit you get the optimum brightness.
SUB CONTRAST adjustment			No.2 PICTURE	<ol style="list-style-type: none"> 1. Receive a broadcast. 2. Select "No.2 PICTURE" of the PICTURE MODE. 3. Set the initial setting value of the "No.2 PICTURE" with the LEFT / RIGHT key of the MENU. 4. If the contrast is not the best with the initial setting value, make fine adjustment of the "No.2 PICTURE" unit you get the optimum contrast.
SUB COLOR adjustment			No.7 COLOR	<ol style="list-style-type: none"> 1. Receive a broadcast. 2. Select "No.7 COLOR" of the PICTURE MODE. 3. Set the initial setting value of the "No.7 COLOR" with the LEFT / RIGHT key of the MENU. 4. If the color is not the best with the initial setting value, make fine adjustment of the "No.7 COLOR" unit you get the optimum color.
SUB TINT adjustment			No.6 TINT	<ol style="list-style-type: none"> 1. Receive a broadcast. 2. Select "No.6 TINT" of the PICTURE MODE. 3. Set the initial setting value of the "No.6 TINT" with the LEFT / RIGHT key of the MENU. 4. If the tint is not the best with the initial setting value, make fine adjustment of the "No.6 TINT" unit you get the optimum tint.

ADJUSTMENT OF PIP CIRCUIT

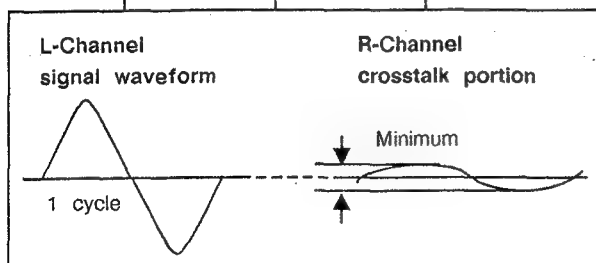
Item	Measuring instrument	Test point	Adjustment part	Description																
RF.AGC (NOISE) adjustment			NOISE VR (R8123) [AV SELECTOR PWB]	<ol style="list-style-type: none">1. Receive a broadcast.2. Turn the NOISE VR so that noise appear in the picture.3. Then adjust the NOISE VR in the direction where noise disappears from the picture, and stop it where noise has disappeared from the picture.4. Select another channel, and make sure that there occurs no trouble.																
PIP WHITE BALANCE adjustment	Signal generator		No.14 G GAIN No.15 B GAIN	<ol style="list-style-type: none">1. Receive a black-and-white signal. (Color off)2. Select the "No.14 G GAIN, No.15 B GAIN" of the PIP SERVICE MODE.3. Set the corresponding initial setting values with the LEFT/RIGHT key of the menu.4. Adjust the "No.14 G GAIN, No.15 B GAIN" until the screen becomes white.																
PIP FRAME WIDTH adjustment	Signal generator		No. 9 FRAME	<ol style="list-style-type: none">1. Receive a black-and-white signal. (Color off)2. Select the "No.9 FRAME" of the PIP SERVICE MODE.3. Adjust the "No.9 FRAME" so that the width of the PIP screen frame will be left to right equal (A = B).																
<div></div>																				
PIP DISPLAY POSITION adjustment	Signal generator		No.2 V POSITION No.3 LOWER POS. No.4 H POSITION No.5 RIGHT POS.	<ol style="list-style-type: none">1. Receive a black-and-white signal. (Color off)2. Select the "No.2 V POSITION" of the PIP SERVICE MODE.3. Set the initial setting value of the No.2 V POSITION" with the LEFT/RIGHT key of the menu.4. Adjust the "No.2 V POSITION" so that the position of the PIP screen edge of upper will be at X1 as shown.5. Adjust the corresponding modes of "No.3, No.4, No.5" with the same steps as 2~4 above.																
<div></div>																				
				<table><tr><th rowspan="2">PIP SERVICE MODE NO.</th><th rowspan="2">Item</th><th>PIP SETTING POSITION</th></tr><tr><th>Approx. (mm)</th></tr><tr><td>No.2</td><td>UPPER POSITION (X1)</td><td>30</td></tr><tr><td>No.3</td><td>LOWER POSITION (X2)</td><td>30</td></tr><tr><td>No.4</td><td>H POSITION (Y1)</td><td>40</td></tr><tr><td>No.5</td><td>RIGHT POSITION (Y2)</td><td>40</td></tr></table>	PIP SERVICE MODE NO.	Item	PIP SETTING POSITION	Approx. (mm)	No.2	UPPER POSITION (X1)	30	No.3	LOWER POSITION (X2)	30	No.4	H POSITION (Y1)	40	No.5	RIGHT POSITION (Y2)	40
PIP SERVICE MODE NO.	Item	PIP SETTING POSITION																		
		Approx. (mm)																		
No.2	UPPER POSITION (X1)	30																		
No.3	LOWER POSITION (X2)	30																		
No.4	H POSITION (Y1)	40																		
No.5	RIGHT POSITION (Y2)	40																		

Item	Measuring instrument	Test point	Adjustment part	Description
PIP SUB CONTRAST adjustment			No.13 CONTRAST	<ol style="list-style-type: none"> 1. Receive a broadcast. 2. Select "No.13 CONTRAST" of the PIP SERVICE MODE. 3. Set the initial setting value of the "No.13 CONTRAST" with the LEFT/RIGHT key of the menu. 4. If the contrast is not the best with the initial setting value, make fine adjustment of the "No.13 CONTRAST" until you get the optimum contrast.
PIP SUB COLOR adjustment			No.12 COLOR	<ol style="list-style-type: none"> 1. Receive a broadcast. 2. Select "No.12 COLOR" of the PIP SERVICE MODE. 3. Set the initial setting value of the "No.12 COLOR" with the LEFT/RIGHT key of the menu. 4. If the color is not the best with the initial setting value, make fine adjustment of the "No.12 COLOR" until you get the optimum color.
PIP SUB TINT adjustment			No.11 TINT	<ol style="list-style-type: none"> 1. Receive a broadcast. 2. Select "No.11 TINT" of the PIP SERVICE MODE. 3. Set the initial setting value of the "No.11 TINT" with the LEFT/RIGHT key of the menu. 4. If the tint is not the best with the initial setting value, make fine adjustment of the "No.11 TINT" until you get the optimum tint.

ADJUSTMENT OF MTS CIRCUIT

Item	Measuring instrument	Test point	Adjustment part	Description
MTS INPUT LEVEL check			No.4 IN LEVEL	<ol style="list-style-type: none"> 1. Select the "No.4 IN LEVEL" of the SOUND MODE. 2. Verify that the "No.4 IN LEVEL" is set at its initial setting value.
MTS STEREO VCO adjustment	Signal generator Frequency counter	MPX Connector 2 pin RTV [AV SELECTION PWB]	No.5 FH MONITOR No.6 STEREO VCO	<ol style="list-style-type: none"> 1. Receive a RF signal (nonmodulated sound signal) from the antenna terminal. 2. Select the "No.5 FH MONITOR" of SOUND MODE, and change the setting value from 0 to 1. 3. Connect the Frequency Counter to pin 2 of MPX connector. 4. Select the "No.6 STEREO VCO". 5. Set the initial setting value of the "No.6 STEREO VCO" with the LEFT/RIGHT key of the menu. 6. Adjust the "No.6 STEREO VCO" so that the Frequency Counter will display $15.73\text{KHz} \pm 0.1\text{KHz}$. 7. Select the "No.5 FH MONITOR" of the SOUND MODE, and reset the setting value from 1 to 0.

Item	Measuring instrument	Test point	Adjustment part	Description
MTS SAP VCO adjustment	Signal generator Frequency counter	MPX Connector 4 pin SDA 3 pin GND 2 pin RTV [AV SELEC-TOR PWB]	No.11 5FH MON. No.12 SAP VCO	<ol style="list-style-type: none"> 1. Receive a RF signal (non modulated sound signal) from the antenna terminal. 2. Connect between pin 4 of MPX connector and GND (Pin 3 of MPX connector) through 1MΩ Resistor. 3. Select the "No.11 5FH MON." of the SOUND MODE, and reset the setting value from 0 to 1. 4. Connect the Frequency Counter to pin 2 (R.OUT) of MPX connector. 5. Select the "No.12 SAP VCO". 6. Set the initial setting value of "No.12 SAP VCO" with the LEFT/RIGHT key of the menu. 7. Adjust the "No.12 SAP VCO" so that the Frequency Counter will display 78.67KHz ± 0.5KHz. 8. Select the "No.11 5FH MON." of the SOUND MODE, and reset the setting value from 1 to 0.
MTS FILTER check			No.8 FILTER	<ol style="list-style-type: none"> 1. Select the "No.8 FILTER" of the SOUND MODE. 2. Verify that the "No.8 FILTER" is set at its initial setting value.
MTS SEPARATION adjustment	TV audio multiplex signal generator Oscilloscope	MPX Connector 1 pin LTV 2 pin RTV [AV SELEC-TOR PWB]	No.9 LOW SEP. No.10 HI SEP.	<ol style="list-style-type: none"> 1. Input a stereo L signal (300Hz) from the TV Audio Multiplex Signal Generator to the antenna terminal. 2. Connect an oscilloscope to pin 1 (L OUT) of MPX connector, and display one cycle portion of the 300Hz signal. 3. Change the connection of the oscilloscope to pin 2 (R OUT) of MPX connector, and enlarge the voltage axis. 4. Select the "No.9 LOW SEP." of the SOUND MODE. 5. Set the initial setting value of the "No.9 LOW SEP." with the LEFT/RIGHT key of the menu. 6. Adjust the "No.9 LOW SEP." so that the stroke element of the 300Hz signal will become minimum. 7. Change the signal to 3kHz, and similarly adjust the "No.10 HI SEP."



HOW TO CHECK THE HIGH VOLTAGE HOLD DOWN CIRCUIT

1. HIGH VOLTAGE HOLD DOWN CIRCUIT

After repairing the high voltage hold down circuit shown in Fig. 1.

This circuit shall be checked to operate correctly.

2. CHECKING OF THE HIGH VOLTAGE HOLD DOWN CIRCUIT

- (1) Turn the POWER SW ON.
- (2) As shown in Fig. 2, set the resistor (between X connector 1 & 3).
- (3) Make sure that the screen picture disappears.
- (4) Temporarily unplug the power cord.
- (5) Remove the resistor (between X connector 1 & 3).
- (6) Again plug the power cord, make sure that the normal picture is displayed on the screen.

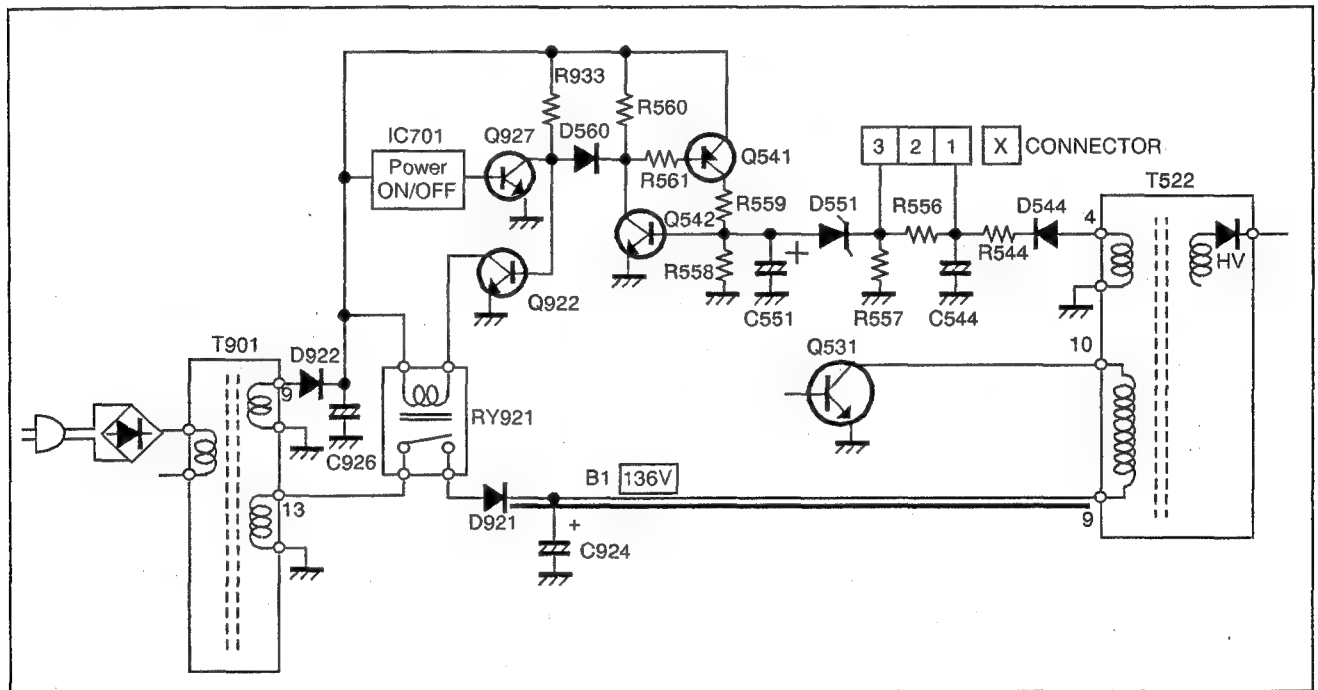


Fig. 1

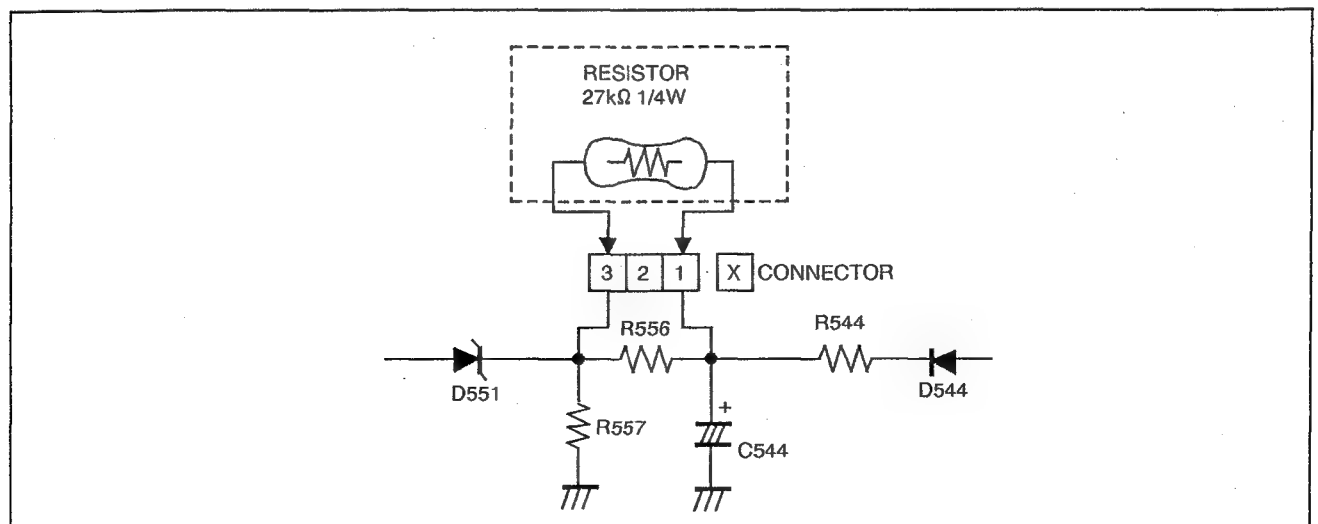


Fig. 2

PARTS LIST

CAUTION

- The parts identified by the Δ symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety .
 - The parts not indicated in this Parts List and those which are filled with lines — in the Parts No. columns will not be supplied .
 - P. W. Board Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied .
 - As a rule, the resistors and capacitors which are indicated as shown in "HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS" are not shown in the list of the parts on the board .
- When ordering the service parts, confirm the resistance/rated power, capacitance/rated voltage, and type of the parts, then order by the part No. indicated according to "HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS" .

ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS		CAPACITORS	
C R	Carbon Resistor	C CAP.	Ceramic Capacitor
F R	Fusible Resistor	E CAP.	Electrolytic Capacitor
P R	Plate Resistor	M CAP.	Mylar Capacitor
V R	Variable Resistor	HV CAP.	High Voltage Capacitor
HV R	High Voltage Resistor	MF CAP.	Metalized Film Capacitor
MF R	Metal Film Resistor	MM CAP.	Metalized Mylar Capacitor
MG R	Metal Glazed Resistor	MP CAP.	Metalized Polystyrol Capacitor
MP R	Metal Plate Resistor	PP CAP.	Polypropylene Capacitor
OM R	Metal Oxide Film Resistor	PS CAP.	Polystyrol Capacitor
CMF R	Coating Metal Film Resistor	TF CAP.	Thin Film Capacitor
UNF R	Non-Flammable Resistor	MPP CAP.	Metalized Polypropylene Capacitor
CH V R	Chip Variable Resistor	TAN. CAP.	Tantalum Capacitor
CH MG R	Chip Metal Glazed Resistor	CH C CAP.	Chip Ceramic Capacitor
COMP. R	Composition Resistor	BP E CAP.	Bi-Polar Electrolytic Capacitor
LPTC R	Linear Positive Temperature Coefficient Resistor	CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
		CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
		CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
		CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

TOLERANCES									
F	G	J	K	M	N	R	H	Z	P
$\pm 1\%$	$\pm 2\%$	$\pm 5\%$	$\pm 10\%$	$\pm 20\%$	$\pm 30\%$	+30% - 10%	+50% - 10%	+ 80% - 20%	+100% - 0%

HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS

■ RESISTOR

Q R

Kind

Rated Power

Shape

Tolerance

Resistance

Symbol	Part Name
C	COMP.R
D	C R
S	CH MG R

Symbol	Rated Power
0 1	1 w
1 2	1/2 w
1 4	1/4 w
1 6	1/6 w
1 8	1/8 w

Symbol	Shape
1	Straight lead
8	Chip

Indicate with first two-figure expressed by Ω and following 0.
please note that,in case of resistance less than 10 Ω, a letter "R" will be effective as point.

EX.

2.2 Ω = 2R2

470 Ω = 47 × 10¹ → 471

150kΩ = 15 × 10⁴ → 154

■ CAPACITOR

Q

Kind

Shape

Rated Voltage

Tolerance

Capacitance

Symbol	Part Name
CS	C CAP.
CS	CH C CAP.
ET	E CAP.
FM	M CAP.

5Figure	0	1	2
6Figure			
A		10V	100V
C		16V	160V
D			200V
E		25V	250V
H		50V	500V
J	6.3V	63V	
V		35V	

Indicate with first two-figure expressed by pF and following 0.
Please note that,in case of capacitance less than 10 pF a letter "R" will be effective as point.

EX

5pF = 5R0

1000pF = 10 × 10² → 102

47μF = 47 × 10⁶ → 476

Symbol	Shape
1	Straight lead
1	Leads in the same direction
8	Chip
A	Leads in the same direction (compact part)

CONTENTS

■ USING P.W. BOARD & REMOTE CONTROL UNIT	27
■ EXPLODED VIEW PARTS LIST	28
■ EXPLODED VIEW	29
■ PRINTED WIRING BOARD PARTS LIST	
● MAIN PW BOARD ASS'Y (SGK-1012A-M2)	30
● CRT SOCKET PW BOARD ASS'Y (SGK-3012A-M2)	33
● FRONT CONTROL PW BOARD ASS'Y (SGK-4011A-M2)	34
● AV SELECTOR PW BOARD ASS'Y (SGK-8012A-M2)	34
● AV JACK PW BOARD ASS'Y (SGK0J002A-M2)	36
● PIP PW BOARD ASS'Y (SGK0P002A-M2)	36
■ REMOTE CONTROL UNIT PARTS LIST	37
■ PACKING	38
■ PACKING PARTS LIST	
● America Model	38
● Canada Model	38

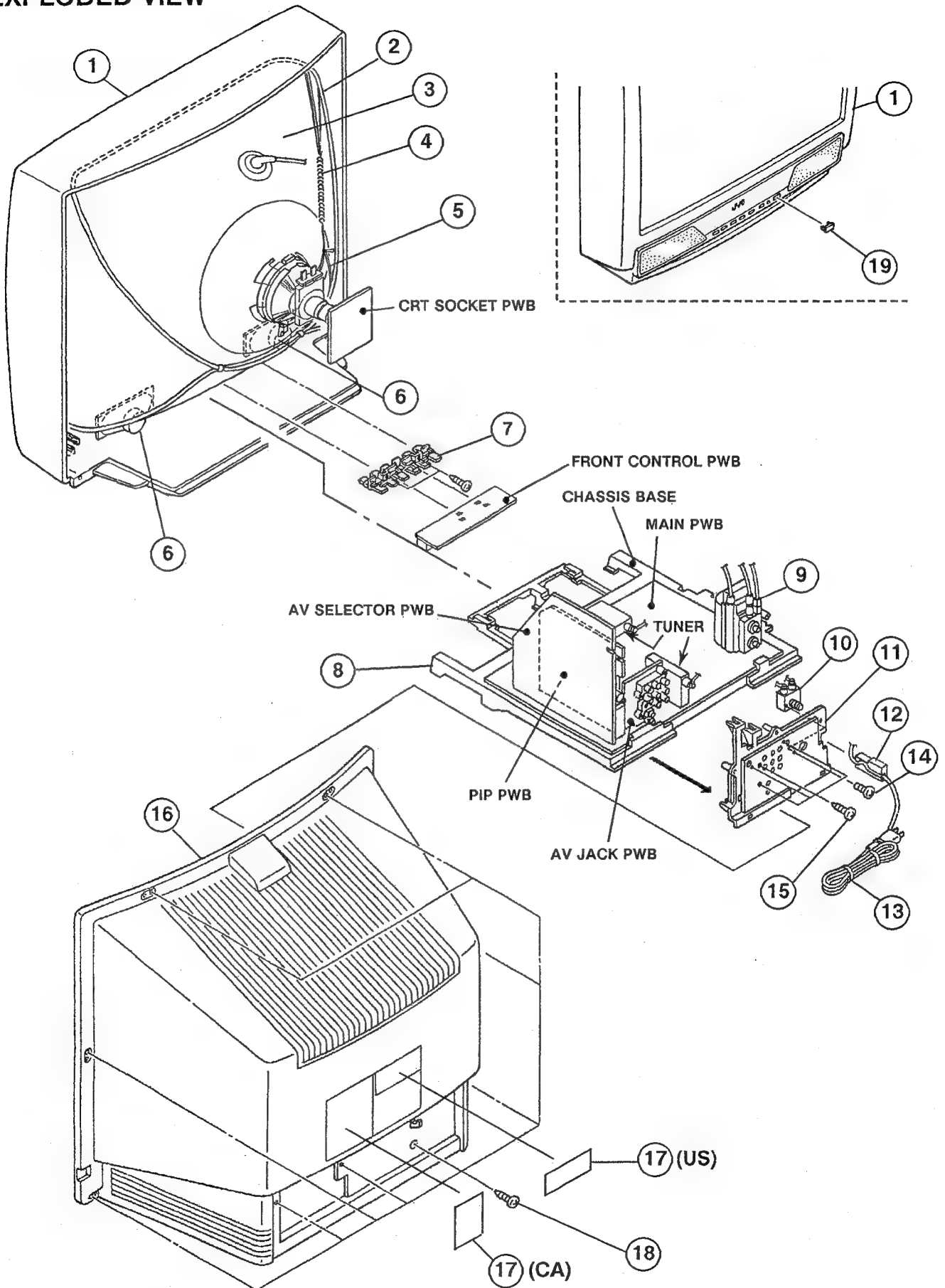
USING P.W. BOARD & REMOTE CONTROL UNIT

P.W.B ASS'Y \ Model	AV-27750 (US&CA)
MAIN P.W.B	SGK-1012A-M2
CRT SOCKET P.W.B	SGK-3012A-M2
FRONT CONTROL P.W.B	SGK-4011A-M2
AV SELECTOR P.W.B	SGK-8012A-M2
AV JACK P.W.B	SGK0J002A-M2
PIP P.W.B	SGK0P002A-M2
REMOTE CONTROL UNIT	RM-C742-1C

EXPLODED VIEW PARTS LIST

△ Ref. No.	Part No.	Part Name	Description	Local
△ 1	CM12793-C02-MA	FRONT CABI.ASSY		*
△ 2	CE41329-00CJ2	DEGAUSSING COIL	L01	*
△ 3	A68ADT25X01	PICTURE TUBE(ITC	V01 Inc.DY	*
4	CHGB0015-0B	BRAIDED ASSY		*
5	CHGB0016-0C	BRAIDED WIRE		*
△ 6	CEBSS12D-04KJ2	SPEAKER	(×2)SP01,SP02	*
7	CM35776-B01-H	PUSH KNOB		*
8	CM12689-B01-VA	CHASSIS BASE		*
△ 9	CJ28333-00AJ1	H.V.T.	T1522	*
10	CEGA005-001	ANT SPLITTER		*
△ 11	CM23036-B01-VA	TERMINAL BOARD		*
12	CM48140-A03-A	POWER CORD CLAMP		*
△ 13	QMPD070-200-E2	POWER CORD		*
14	SPSP3008Z	SCREW		*
15	SBSB3010Z	TAPPING SCREW	(×4)	*
△ 16	CM12415-B62-MA	REAR COVER		*
△ 17	CM23034-001-A	RATING LABEL	(US)	*
△ 17	CM22999-001-A	RATING LABEL	(CA)	*
18	GBSB4016Z	TAPPING SCREW	(×9)	*
19	CM35983-001-H	REMOCON WINDOW		*

EXPLODED VIEW



PRINTED WIRING BOARD PARTS LIST MAIN PW BOARD ASS'Y (SGK-1012A-M2)

△ Symbol No.	Part No.	Part Name	Description	Local
R E S I S T O R				
R1001	QRD149J-5R6S	C R	5.6 Ω 1/4W J	*
R1423	QRX029J-R82A	MF R	0.82 Ω 2W J	*
R1524-25	QRG039J-182A	OM R	1.8k Ω 3W J	*
R1533	QRG039J-103A	OM R	10k Ω 3W J	*
R1541	QRD129J-150S	C R	15 Ω 1/2W J	*
R1542	QRX019J-1R2S	MF R	1.2 Ω 1W J	*
R1544	QRD129J-4R7S	C R	4.7 Ω 1/2W J	*
△ R1556	QRV141F-7501AY	MF R	7.5k Ω 1/4W F	*
△ R1557	QRV141F-2871AY	MF R	2.87k Ω 1/4W F	*
R1605	QRX029J-2R2	MF R	2.2 Ω 2W J	*
R1712	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	*
R1771	QRG019J-820S	OM R	82 Ω 1W J	*
△ R1901	QRF074K-R47	UNF R	0.47 Ω 7W K	*
R1903	QRX029J-R47A	MF R	0.47 Ω 2W J	*
R1904	QRX029J-R39A	MF R	0.39 Ω 2W J	*
R1905	QRG019J-150S	OM R	15 Ω 1W J	*
R1906	QRD149J-1R0S	C R	1 Ω 1/4W J	*
R1909	QRD149J-222S	C R	2.2k Ω 1/4W J	*
R1910	QRD149J-102S	C R	1k Ω 1/4W J	*
R1911	QRX129J-R68A	MF R	0.68 Ω 1/2W J	*
R1924	QRG019J-331S	OM R	330 Ω 1W J	*
R1927	QRD149J-3R3S	C R	3.3 Ω 1/4W J	*
△ R1998	QRZ0111-275U	C R	2.7M Ω 1/2W	*
C A P A C I T O R				
C1006	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	*
C1011	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	*
C1102	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	*
C1104-05	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	*
C1106	NCT03CH-680AY	CHIP CAP.	68 pF 1600V H	*
C1107	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	*
C1131	QFV71HJ-154MZ	TF CAP.	0.15 μF 50V J	*
C1132	QFN31HK-152ZJ1	M CAP.	1500 pF 50V K	*
C1134	NCB21HK-102AY	CHIP CAP.	1000 pF 50V K	*
C1135	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	*
C1162	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	*
C1163	NCT03CH-220AY	CHIP CAP.	22 pF 1600V H	*
C1164	NCT03CH-470AY	CHIP CAP.	47 pF 1600V H	*
C1166	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	*
C1168-70	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	*
C1205	QFV71HJ-104MZ	TF CAP.	0.1 μF 50V J	*
C1208	NCT03CH-680AY	CHIP CAP.	68 pF 1600V H	*
C1226	NCT03CH-681AY	CHIP CAP.	680 pF 1600V H	*
C1228	QFV71HJ-104MZ	TF CAP.	0.1 μF 50V J	*
C1301	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	*
C1302	NCT03CH-100AY	CHIP CAP.	10 pF 1600V H	*
C1303	QFLC1HK-223MZ	M CAP.	0.022 μF 50V K	*
C1306	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	*
C1402	QEE61CK-225BZ	TAN. CAP.	2.2 μF 16V K	*
C1403	NCB21HK-102AY	CHIP CAP.	1000 pF 50V K	*
C1421	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	*
C1424	QETC1VM-107Z	E CAP.	100 μF 35V M	*
C1425	QETC1VM-477Z	E CAP.	470 μF 35V M	*
C1426	QFLC2AK-563MZ	M CAP.	0.056 μF 100V K	*
C1428	QFV71HJ-684MZ	TF CAP.	0.68 μF 50V J	*
C1429	QFV71HJ-224MZ	TF CAP.	0.22 μF 50V J	*
C1503	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	*
C1523	QETC2CM-105Z	E CAP.	1 μF 160V M	*
△ C1531	QFZ0117-3001S	MPP CAP.	3000 pF 1.4kVH ± 2.5%	*
△ C1532	QFZ0117-1202S	MPP CAP.	0.012 μF 1.4kVH ± 2.5%	*
△ C1533	QFN32DK-124J1	M CAP.	0.12 μF 200V K	*
C1534	QEH2EM-225MZ	E CAP.	2.2 μF 250V M	*

△ Symbol No.	Part No.	Part Name	Description	Local
CAPACITOR				
△ C1535	QFZ0119-434L	MPP CAP.	0.43 μ F 200V $\pm 3\%$	*
C1538	QEZO203-107R	E CAP.	100 μ F 160V	*
C1541	QETB2EM-336	E CAP.	33 μ F 250V M	*
C1542	QETB1VM-108	E CAP.	1000 μ F 35V M	*
C1544	QETC1VM-107Z	E CAP.	100 μ F 35V M	*
C1545	QFLC2AJ-393MZ	M CAP.	0.039 μ F 100V J	*
C1546	QFV71HJ-473MZ	TF CAP.	0.047 μ F 50V J	*
C1578-79	QEM61HK-475MZ	E CAP.	4.7 μ F 50V K	*
C1701-02	NCB21HK-103AY	CHIP CAP.	0.01 μ F 50V K	*
C1704	NCB21HK-103AY	CHIP CAP.	0.01 μ F 50V K	*
C1705	NCT03CH-181AY	CHIP CAP.	180 p F 1600V H	*
C1709	NCT03CH-221AY	CHIP CAP.	220 p F 1600V H	*
C1710-11	NCT03CH-390AY	CHIP CAP.	39 p F 1600V H	*
C1712	NCT03CH-270AY	CHIP CAP.	27 p F 1600V H	*
C1713	NCT03CH-150AY	CHIP CAP.	15 p F 1600V H	*
C1714	NCB21HK-103AY	CHIP CAP.	0.01 μ F 50V K	*
C1716	NCB21HK-103AY	CHIP CAP.	0.01 μ F 50V K	*
C1717-18	NCT03CH-330AY	CHIP CAP.	33 p F 1600V H	*
C1720-21	NCB21HK-103AY	CHIP CAP.	0.01 μ F 50V K	*
C1741	QFN31HJ-102ZJ1	M CAP.	1000 p F 50V J	*
C1744	NCT03CH-681AY	CHIP CAP.	680 p F 1600V H	*
C1772	NCB21HK-103AY	CHIP CAP.	0.01 μ F 50V K	*
△ C1901	QFZ9040-104N	MF CAP.	0.1 μ FAC250V M	*
△ C1902	QFZ9040-473N	MM CAP.	0.047 μ FAC250V M	*
△ C1903	QFZ9040-104N	MF CAP.	0.1 μ FAC250V M	*
△ C1904	QCZ9052-102A	C CAP.	1000 p FAC125V	*
△ C1906	QCZ9033-102A	C CAP.	1000 p FAC250V K	*
△ C1907	QCZ9033-102A	C CAP.	1000 p FAC250V K	*
△ C1908	QCZ9033-102A	C CAP.	1000 p FAC250V K	*
△ C1910	QEZO169-477	E CAP.	470 μ F 200V M	*
C1911	QCZO116-152AZ	C CAP.	1500 p F 1000V K	*
C1917	QETC2AM-106Z	E CAP.	10 μ F 100V M	*
C1918	NCB21HK-102AY	CHIP CAP.	1000 p F 50V K	*
C1921-22	QCZO132-152AZ	C CAP.	1500 p F 500V K	*
C1924	QEZO203-107R	E CAP.	100 μ F 160V	*
C1929	QETC2CM-106Z	E CAP.	10 μ F 160V M	*
C1938	NCT03CH-471AY	CHIP CAP.	470 p F 1600V H	*
△ C1999	QCZ9052-222A	C CAP.	2200 p FAC125V	*
TRANSFORMER				
T1131	CELT001-209J3	C.WAVE TRANSF.		*
T1161	CELT003-109J3	S.I.F.TRANSF.		*
T1521	CE42034-002	H.DRIVE TRANSF.		*
△ T1522	CJ28333-00AJ1	H V TRANSF.		*
△ T1901	CETS021-001J3	SWITCH.TRANSF.		*
COIL				
L1001	CELP059-101Z	PEAKING COIL	100 μ H	*
L1102	CELP041-R22	PEAKING COIL	0.22 μ H	*
L1103	CELP041-R68	PEAKING COIL	0.68 μ H	*
L1104	CELP059-680Z	PEAKING COIL	68 μ H	*
L1131	CELP059-220Z	PEAKING COIL	22 μ H	*
L1161	CELP059-680Z	PEAKING COIL	68 μ H	*
L1162	CELP059-220Z	PEAKING COIL	22 μ H	*
L1201	CELP059-270Z	PEAKING COIL	27 μ H	*
△ L1531	CELL004-001	LINEARITY COIL		*
△ L1532	CELC052-821	CHOKE COIL		*
△ L1591	CELC901-036J6	HEATER CHOKE		*
L1701	CELP059-5R6Z	PEAKING COIL	5.6 μ H	*
L1702	CELP058-100Z	PEAKING COIL	10 μ H	*
L1771	CELP059-5R6Z	PEAKING COIL	5.6 μ H	*
L1921	CELC058-820Z	CHOKE COIL		*
L1922	CELC058-220Z	CHOKE COIL		*
DIODE				
D1001	MTZJ36(A)-T2	ZENER DIODE		*
D1221	MTZJ5.1(B)-T2	ZENER DIODE		*

△ Symbol No.	Part No.	Part Name	Description	Local
D I O D E				
	D1231-34	1SS133-T2	SI.DIODE	*
	D1421	1N4003-T2	SI.DIODE	*
	D1422	MTZJ75-T2	ZENER DIODE	*
	D1511	MTZJ3.3(A)-T2	ZENER DIODE	*
△	D1531	RH3G-C1	SI.DIODE	
△	D1532	RU3AM-LFC4	SI.DIODE	
	D1533	RGP10J(C1)-T3	SI.DIODE	*
	D1541	RH1S-T3	SI.DIODE	
	D1542	RGP10J(C1)-T3	SI.DIODE	*
	D1544	1SS81-T2	SI.DIODE	*
	D1546	1SR124-400A-T2	SI.DIODE	*
	D1549	MTZJ9.1(B)-T2	ZENER DIODE	*
△	D1551	MTZJ7.5S-T2	ZENER DIODE	*
	D1560	1SS133-T2	SI.DIODE	*
	D1601-03	1SS133-T2	SI.DIODE	*
	D1703-04	1SS133-T2	SI.DIODE	*
	D1741-42	1SS133-T2	SI.DIODE	*
	D1771-73	1SS133-T2	SI.DIODE	*
△	D1901	D3SBA60-C1	BRIDGE DIODE	*
△	D1902	RGP10J(C1)-T3	SI.DIODE	*
	D1904	RMPG06D-T2	SI.DIODE	
	D1905	1SR124-400A-T2	SI.DIODE	*
	D1907	1SR124-400A-T2	SI.DIODE	*
	D1909	MTZJ15(A)-T2	ZENER DIODE	*
	D1911	1SS133-T2	SI.DIODE	*
	D1921	RU3AM-LFC4	SI.DIODE	
	D1922	RU3YX-LFC4	SI.DIODE	
	D1923	RGP10J(C1)-T3	SI.DIODE	*
	D1924	1SR35-100A-T2	SI.DIODE	*
	D1926-28	1SS133-T2	SI.DIODE	*
	D1931	1SS133-T2	SI.DIODE	*
	D1933	1SS133-T2	SI.DIODE	*
	D1934	RGP10J(C1)-T3	SI.DIODE	*
T R A N S I S T O R				
	Q1101	2SC5083(L-P)-T	SI.TRANSISTOR	*
	Q1131-32	2SC2412K(QR)-X	SI.TRANSISTOR	*
	Q1161	2SC2412K(QR)-X	SI.TRANSISTOR	*
	Q1203	2SC2412K(QR)-X	SI.TRANSISTOR	*
	Q1204-05	2SA1037K(QR)-X	SI.TRANSISTOR	*
	Q1231-32	2SC2412K(QR)-X	SI.TRANSISTOR	*
	Q1521	2SC4212-C1	SI.TRANSISTOR	
△	Q1531	2SD2499-LB	POWER TRANSISTOR H.OUT	*
	Q1541	2SA933S(QR)-T	SI.TRANSISTOR	*
△	Q1542	2SC2785(JH)-T	SI.TRANSISTOR	*
	Q1601	DTC124EKA-X	DIGI.TRANSISTOR	*
	Q1602	2SC2412K(QR)-X	SI.TRANSISTOR	*
	Q1603	DTC124EKA-X	DIGI.TRANSISTOR	*
	Q1604	2SA1037K(QR)-X	SI.TRANSISTOR	*
	Q1701	DTC124EKA-X	DIGI.TRANSISTOR	*
	Q1741	2SC2412K(QR)-X	SI.TRANSISTOR	*
	Q1742	DTC124EKA-X	DIGI.TRANSISTOR	*
	Q1743	2SC2412K(QR)-X	SI.TRANSISTOR	*
	Q1921	2SC2412K(QR)-X	SI.TRANSISTOR	*
	Q1922	2SD1383K-X	SI.TRANSISTOR	
	Q1923	2SA1020(Y)-T	SI.TRANSISTOR	
	Q1924	2SC2412K(QR)-X	SI.TRANSISTOR	*
	Q1925-28	DTC124EKA-X	DIGI.TRANSISTOR	*
I C				
	IC1001	KIA78L05BP-Y	I.C.(MONO-ANA)	*
	IC1101	KIA7809PI	I.C.(MONO-ANA)	*
	IC1201	TA1242N	I.C.(MONO-ANA)	
△	IC1421	LA7832	I C	
△	IC1601	LA4485	I.C.(MONO-ANA)	
	IC1701	MN1874876J7R3	I C	

△ Symbol No.	Part No.	Part Name	Description	Local
I C				
IC1702	AT24C04-27750U	I.C.(EP-ROM)	(SERVICE)	
IC1703	MN1280-Q	I.C.(DIGI-MOS)		*
IC1771	KIA78L05BP-Y	I.C.(MONO-ANA)		*
△ IC1901	STR-S5708	I.C.(HYBRID)		
O T H E R S				
CF1001	FTP47.25MF	CERAMIC FILTER		*
CF1131	CE41505-001	CERAMIC FILTER		
CF1161	SFSH4.5MCB	CERAMIC FILTER		*
CF1501	CSB503F30-T2	CER.RESONATOR		*
CF1701	FCR12.0M2S	CER.RESONATOR		*
△ F1901	QMF0007-5R0J1	FUSE	5.0A	*
K1421	CE42050-001Z	CORE		
K1902	CE41433-001Z	BEADS CORE		
K1921	CE41433-001Z	BEADS CORE		
K1922	CE42050-001Z	CORE		
△ LF1901	CELF008-001J5	LINE FILTER		*
△ LF1902	CE42335-001J1	LINE FILTER		*
△ PC1901	TLP621(GB)	I.C.(PH.COUPLER)		*
△ PC1902	TLP621(GB)	I.C.(PH.COUPLER)		*
△ RY1901	CESK028-001	RELAY		*
△ RY1921	CESK028-001	RELAY		*
S1421	QSL6A13-C01	LEVER SWITCH	V.CENTER SW	*
SF1101	CE42604-201	SAW FILTER		
△ TH1901	CEKP007-002	P.THERMISTOR		
△ TU1001	CEEK280-A01	TUNER		*
△ VA1901	ERZV10V361CS	VARISTOR		*
X1301	CE41651-001Z	CRYSTAL		*
△ Y1009	ICP-N75-Y	I.C.PROTECT		*

CRT SOCKET PW BOARD ASS'Y (SGK-3012A-M2)

△ Symbol No.	Part No.	Part Name	Description	Local
R E S I S T O R				
R3360-62	QRZ0111-152	C R	1.5k Ω 1/2W	*
R3363-65	QRG029J-103	OM R	10k Ω 2W J	*
C A P A C I T O R				
C3354-55	NCS21HJ-331AY	CER.CAP.-M	330 p F 50V J	*
C3356	NCS21HJ-391AY	CER.CAP.-M	330 p F 50V J	*
△ C3382	QCZ0121-102A	C CAP.	1000 p F 3kV Z	*
C O I L				
L3381	CELP055-101Z	PEAKING COIL	100 μ H	*
T R A N S I S T O R				
Q3351-53	2SC4544-C1	SI.TRANSISTOR		*
O T H E R S				
△ SK3351	CE42535-001J1	C.R.T.SOCKET		*

FRONT CONTROL PW BOARD ASS'Y (SGK-4011A-M2)

△ Symbol No.	Part No.	Part Name	Description	Local
D I O D E				
D4701	GL2PR6	L.E.D.(RED)		*
T R A N S I S T O R				
Q4701-02	DTA124EKA-X	DIGI.TRANSISTOR		*
I C				
IC4841	HC-337MN	IFR DETECT UNIT		*
O T H E R S				
	CM46978-A01-H	L.E.D.HOLDER		*
S4702	QSP1A11-C19Z	PUSH SWITCH	MENU	*
S4703	QSP1A11-C19Z	PUSH SWITCH	CH -	*
S4704	QSP1A11-C19Z	PUSH SWITCH	CH +	*
S4705	QSP1A11-C19Z	PUSH SWITCH	VOL -	*
S4706	QSP1A11-C19Z	PUSH SWITCH	VOL +	*
S4707	QSP1A11-C19Z	PUSH SWITCH	POWER	*

AV SELECTOR PW BOARD ASS'Y (SGK-8012A-M2)

△ Symbol No.	Part No.	Part Name	Description	Local
V A R I A B L E R E S I S T O R				
R8123	QVPA603-473AZ	V R (NOISE VR)	47kΩ B	
R E S I S T O R				
R8005	QRD149J-5R6S	C R	5.6 Ω 1/4W J	*
R8109	NRVA02D-2200NY	CHIP MF R	220 Ω 1/10W F	*
R8607	NRVA02D-1502NY	MF R	15kΩ 1/10W F	*
R8609	NRVA02D-1501NY	MF R	1.5kΩ 1/10W F	*
C A P A C I T O R				
C8005	NCB21HK-103AY	CHIP CAP.	0.01μF 50V K	*
C8101-03	NCB21HK-103AY	CHIP CAP.	0.01μF 50V K	*
C8104	NCB21HK-222AY	CHIP CAP.	2200pF 50V K	*
C8106	NCB21HK-222AY	CHIP CAP.	2200pF 50V K	*
C8107	NCB21HK-103AY	CHIP CAP.	0.01μF 50V K	*
C8108	NCS21HJ-101AY	CHIP CAP.	100pF 50V J	*
C8109-10	QFV71HJ-224MZ	TF CAP.	0.22μF 50V J	*
C8112	NCB21HK-222AY	CHIP CAP.	2200pF 50V K	*
C8115	NCB21HK-103AY	CHIP CAP.	0.01μF 50V K	*
C8118	QFV71HJ-474MZ	TF CAP.	0.47μF 50V J	*
C8161	QFLC1HK-104MZ	M CAP.	0.1μF 50V K	*
C8205	NCT03CH-330AY	CHIP CAP.	33pF 1600V H	*
C8302	QFLC1HK-103MZ	M CAP.	0.01μF 50V K	*
C8303	NCT03CH-680AY	CHIP CAP.	68pF 1600V H	*
C8304	NCT03CH-271AY	CHIP CAP.	270pF 1600V H	*
C8305	NCB21HK-103AY	CHIP CAP.	0.01μF 50V K	*
C8316	NCB21HK-103AY	CHIP CAP.	0.01μF 50V K	*
C8317	NCT03CH-680AY	CHIP CAP.	68pF 1600V H	*
C8602	QFLC1HK-103MZ	M CAP.	0.01μF 50V K	*
C8604	QFV71HJ-104MZ	TF CAP.	0.1μF 50V J	*
C8605	QEN61HM-475Z	BP E CAP.	4.7μF 50V M	*
C8606	QEN61HM-105Z	BP E CAP.	1μF 50V M	*
C8608	QFLC1HK-473MZ	M CAP.	0.047μF 50V K	*
C8610-11	QFV71HJ-104MZ	TF CAP.	0.1μF 50V J	*
C8613	QEE61CK-335BZ	TAN.CAP.	3.3μF 16V K	

△ Symbol No.	Part No.	Part Name	Description	Local
C A P A C I T O R				
C8614	QEE61CK-106BZ	TAN.CAP.	10 μ F 16V K	*
C8619	QFLC1HK-273MZ	M CAP.	0.027 μ F 50V K	*
C8621	QFN31HK-222ZJ1	M CAP.	2200 pF 50V K	*
C8622	QFV71HJ-104MZ	TF CAP.	0.1 μ F 50V J	*
C8624	QFN31HK-222ZJ1	M CAP.	2200 pF 50V K	*
C8625	QFV71HJ-104MZ	TF CAP.	0.1 μ F 50V J	*
C8661-62	QEN61HM-105Z	BP E CAP.	1 μ F 50V M	*
C8829	QEN61HM-106Z	BP E CAP.	10 μ F 50V M	*
C8832	QFLC1HK-103MZ	M CAP.	0.01 μ F 50V K	*
C8841	QETC1CM-476Z	E CAP.	47 μ F 16V M	*
C8842	QFLC1HK-103MZ	M CAP.	0.01 μ F 50V K	*
C8846	QFLC1HK-103MZ	M CAP.	0.01 μ F 50V K	*
C O I L				
L8003	CELP059-150Z	PEAKING COIL	15 μ H	*
L8101	CELP041-R22	PEAKING COIL	0.22 μ H	*
L8103	CE42452-003	COIL		*
L8104	CELP055-220Z	PEAKING COIL	22 μ H	*
L8106	CELP059-5R6Z	PEAKING COIL	5.6 μ H	*
L8202	CELP059-220Z	PEAKING COIL	22 μ H	*
L8301	CELP059-150Z	PEAKING COIL	15 μ H	*
L8801-02	CELP059-5R6Z	PEAKING COIL	5.6 μ H	*
D I O D E				
D8311-13	1SS133-T2	SI.DIODE		*
D8693-94	MTZJ9.1(C)-T2	ZENER DIODE		*
D8701-03	MTZJ5.6(B)-T2	ZENER DIODE		*
D8811-22	MTZJ9.1(C)-T2	ZENER DIODE		*
T R A N S I S T O R				
Q8101	2SC5083(L-P)-T	SI.TRANSISTOR		*
Q8102	2SA1037K(QR)-X	SI.TRANSISTOR		*
Q8202	2SC2412K(QR)-X	SI.TRANSISTOR		*
Q8203	2SA1037K(QR)-X	SI.TRANSISTOR		*
Q8204	2SC2412K(QR)-X	SI.TRANSISTOR		*
Q8301-03	2SC2412K(QR)-X	SI.TRANSISTOR		*
Q8305	2SC2412K(QR)-X	SI.TRANSISTOR		*
Q8671-72	DTC124EKA-X	DIGI.TRANSISTOR		*
Q8683-86	2SC2412K(QR)-X	SI.TRANSISTOR		*
Q8801-02	2SC2412K(QR)-X	SI.TRANSISTOR		*
Q8803	2SA1037K(QR)-X	SI.TRANSISTOR		*
Q8804-07	2SC2412K(QR)-X	SI.TRANSISTOR		*
Q8851-53	DTC124EKA-X	DIGI.TRANSISTOR		*
I C				
IC8001	KIA7805PI	I.C.(MONO-ANA)		*
IC8101	LA7583	I.C.(MONO-ANA)		*
IC8601	UPC1851CU-02	I.C.(MONO-ANA)		*
IC8661	BA15218N	I.C.(MONO-ANA)		*
IC8671	TC4066BP	I.C.(DIGI-MOS)		*
IC8801-02	BA7644AN	OP AMP IC		*
IC8803	TC4066BP	I.C.(DIGI-MOS)		*
O T H E R S				
CF8101	FTP47.25MF	CERAMIC FILTER		*
CF8102	FCR5.71M2SF3	CER.RESONATOR		*
CF8103	CE41505-001	CERAMIC FILTER		*
CM8201	CE42599-001	COMB FILTER MOD		*
CN8004	CHA401N-25P-J	HQF CONNECTOR		*
DL8201	CE42464-001	BPF&DL MODULE		*
J8801	QMCC004-C01	MINI DIN JACK		*
SF8101	CE42589-201	SAW FILTER		*
△ TU8001	CEEK280-A01	TUNER		*

AV JACK PW BOARD ASS'Y (SGK0J002A-M2)

△ Symbol No.	Part No.	Part Name	Description	Local
O T H E R S				
CN0004	CHA401N-25R-J	HQF CONNECTOR		*
J0802-03	CEMN073-001	PIN JACK		*
J0804	CEMN090-003	PIN JACK		*
J0805-06	AX49607-020	MINI JACK		*

PIP PW BOARD ASS'Y (SGK0P002A-M2)

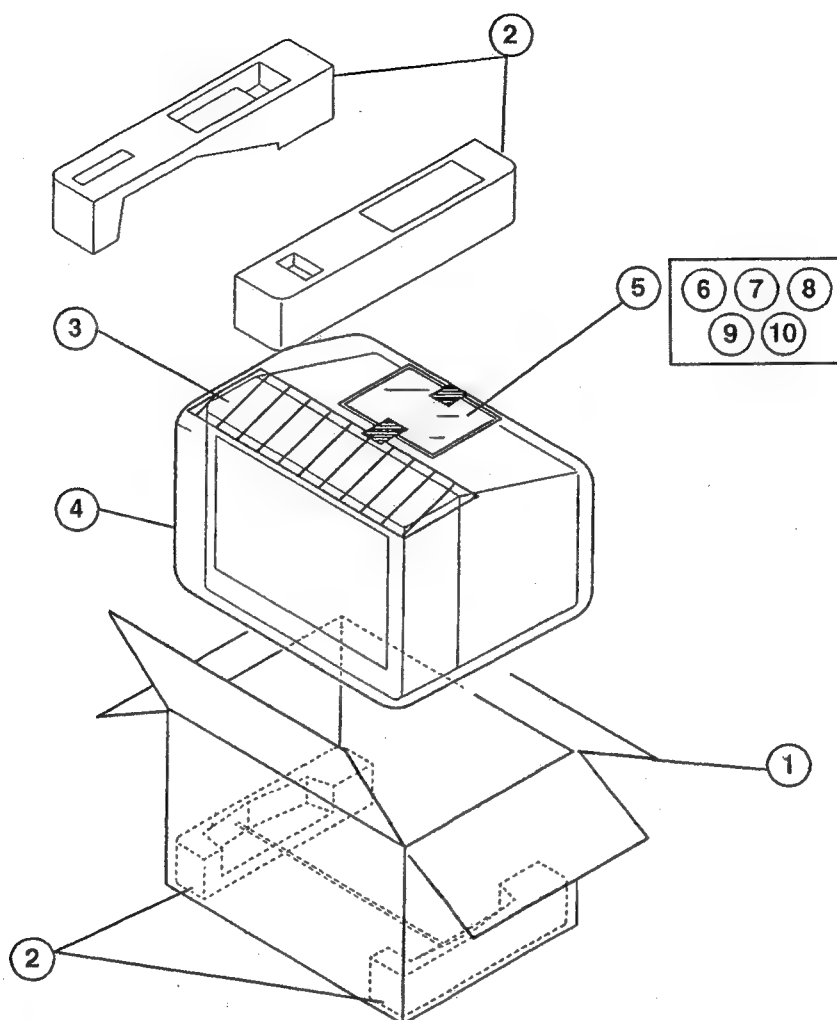
△ Symbol No.	Part No.	Part Name	Description	Local
R E S I S T O R				
R0161	QRG019J-390S	OM R	39 Ω 1W J	*
R0401	QRD149J-330S	C R	33 Ω 1/4W J	*
C A P A C I T O R				
C0101	QEN61CM-106Z	BP E CAP.	10 μF 16V M	*
C0102	NCT03CH-150AY	CHIP CAP.	15 pF 1600V H	*
C0103	NCT03CH-101AY	CHIP CAP.	100 pF 1600V H	*
C0104	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	*
C0110	NCT03CH-561AY	CHIP CAP.	560 pF 1600V H	*
C0122	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	*
C0123	NCB21HK-152AY	CHIP CAP.	1500 pF 50V K	*
C0125	NCF21HZ-103AY	CHIP C CAP.	0.01 μF 50V Z	*
C0126	QFV71HJ-104MZ	TF CAP.	0.1 μF 50V J	*
C0127	NCT03CH-220AY	CHIP CAP.	22 pF 1600V H	*
C0142	NCT03CH-150AY	CHIP CAP.	15 pF 1600V H	*
C0143	NCF21HZ-103AY	CHIP C CAP.	0.01 μF 50V Z	*
C0145	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	*
C0149	NCT03CH-101AY	CHIP CAP.	100 pF 1600V H	*
C0150	NCT03CH-470AY	CHIP CAP.	47 pF 1600V H	*
C0162	NCF21HZ-103AY	CHIP C CAP.	0.01 μF 50V Z	*
C0164	NCF21HZ-103AY	CHIP C CAP.	0.01 μF 50V Z	*
C0166	NCF21HZ-103AY	CHIP C CAP.	0.01 μF 50V Z	*
C0171-89	NCF21HZ-103AY	CHIP C CAP.	0.01 μF 50V Z	*
C0202	NCF21HZ-103AY	CHIP C CAP.	0.01 μF 50V Z	*
C0204-05	NCF21HZ-103AY	CHIP C CAP.	0.01 μF 50V Z	*
C0210-11	QEN61HM-475Z	BP E CAP.	4.7 μF 50V M	*
C0213	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	*
C0215	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	*
C0216	NCT03CH-102AY	CHIP CAP.	1000 pF 1600V H	*
C0222-25	NCT03CH-470AY	CHIP CAP.	47 pF 1600V H	*
C0227	NCF21HZ-103AY	CHIP C CAP.	0.01 μF 50V Z	*
C0241-51	NCT03CH-101AY	CHIP CAP.	100 pF 1600V H	*
C0252-60	NCT03CH-471AY	CHIP CAP.	470 pF 1600V H	*
C0261-62	NCT03CH-681AY	CHIP CAP.	680 pF 1600V H	*
C0263	NCT03CH-101AY	CHIP CAP.	100 pF 1600V H	*
C0270-78	NCF21HZ-103AY	CHIP C CAP.	0.01 μF 50V Z	*
C0304	QEN61HM-475Z	BP E CAP.	4.7 μF 50V M	*
C0310	NCF21HZ-103AY	CHIP C CAP.	0.01 μF 50V Z	*
C0331	NCF21HZ-103AY	CHIP C CAP.	0.01 μF 50V Z	*
C O I L				
L0101	CELP059-100Z	PEAKING COIL	10 μH	*
L0103	CELP059-150Z	PEAKING COIL	15 μH	*
L0106	CELP059-820Z	PEAKING COIL	82 μH	*
L0107	CELP059-150Z	PEAKING COIL	15 μH	*

△ Symbol No.	Part No.	Part Name	Description	Local
D I O D E				
D0201	1SS133-T2	SI.DIODE		*
D0403	1SS133-T2	SI.DIODE		*
T R A N S I S T O R				
Q0101-05	2SC2412K(QR)-X	SI.TRANSISTOR		*
Q0106	2SA1037K(QR)-X	SI.TRANSISTOR		*
Q0201	2SA1037K(QR)-X	SI.TRANSISTOR		*
Q0301-09	2SC2412K(QR)-X	SI.TRANSISTOR		*
Q0402	2SA1037K(QR)-X	SI.TRANSISTOR		*
Q0403-09	2SC2412K(QR)-X	SI.TRANSISTOR		*
I C				
IC0101	LA7403	I C		
IC0102	KIA7809PI	I.C.(MONO-ANA)		*
IC0103	KIA7805PI	I.C.(MONO-ANA)		*
IC0201	LC74411	I C		
IC0202	MN1381-Q-Y	I.C.(MONO-ANA)		
IC0301	BA7655AF-X	I.C.(MONO-ANA)		*
IC0401	AN5860	I.C.(MONO-ANA)		
O T H E R S				
X0101	CSB503F30-T2	CER.RESONATOR		*
X0102	CE41651-001Z	CRYSTAL		*

REMOTE CONTROL UNIT PARTS LIST (RM-C742-1C)

△ Ref.No.	Part No.	Part Name	Description	Local
	2AA015250	BATTERY COVER		*

PACKING



PACKING PARTS LIST

△ Ref.No.	Part No.	Part Name	Description	Local
[America model]				
1	CP11499-A02-A	PACKING CASE	4pcs in 1set	*
2	CP11536-A0D-A	CUSHION ASSY		*
3	CP30055-001-A	TOP COVER		*
4	CP30056-002-A	POLY BAG		*
5	QPGA025-03505A	POLY BAG		*
6	RM-C742-1C	REMOCON UNIT		*
△ 7	CQ40198-001-A	INST BOOK	(ENGLISH)	*
8	BT-51006-1Q	REGI.CARD		*
[Canada model]				
1	CP11499-A02-A	PACKING CASE	4pcs in 1set	*
2	CP11536-A0D-A	CUSHION ASSY		*
3	CP30055-001-A	TOP COVER		*
4	CP30056-002-A	POLY BAG		*
5	QPGA025-03505A	POLY BAG		*
6	RM-C742-1C	REMOCON UNIT		*
△ 7	CQ40198-001-A	INST BOOK	(ENGLISH)	*
△ 7	CQ40199-001-A	INST BOOK	(FRENCH)	*
9	BT-52002-1Q	WARRANTY CARD		*
10	BT-20071B-Q	SVC CENTER LIST		*

OPERATING INSTRUCTIONS (AV-35750 • AV-32750 • AV-32730) AV-32720 • AV-27750 • AV-27730)



JVC


JVC COMPANY OF AMERICA
A Division of U.S. JVC CORP.
41 Slater Drive
Elmwood Park, New Jersey 07407

JVC CANADA, INC.
21 Finchdene Square
Scarborough, Ontario
Canada M1X 1A7


CO40198-001-A
0598 TN-JL-JIM



IMPORTANT SAFETY PRECAUTIONS



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (ON BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS TV SET TO RAIN OR MOISTURE.

CAUTION: TO INSURE PERSONAL SAFETY, OBSERVE THE FOLLOWING RULES REGARDING THE USE OF THIS UNIT.

1. Operate only from the power source specified on the unit.
 2. Avoid damaging the AC plug and power cord.
 3. Avoid improper installation and never position the unit where good ventilation is unattainable.
 4. Do not allow objects or liquid into the cabinet openings.
 5. In the event of trouble, unplug the unit and call a service technician. Do not attempt to repair it yourself or remove the rear cover. Changes or modifications not approved by JVC could void the warranty.
- * When you don't use this TV set for a long period of time, be sure to disconnect both the power plug from the AC outlet and antenna for your safety.
- * To prevent electric shock do not use this polarized plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

IMPORTANT SAFEGUARDS

CAUTION:

Please read and retain for your safety. Electrical energy can perform many useful functions. This TV set has been engineered and manufactured to assure your personal safety. But *improper use can result in potential electrical shock or fire hazards.* In order not to defeat the safeguards incorporated in this TV set, observe the following basic rules for its installation, use and servicing. And also follow all warnings and instructions marked on your TV set.

INSTALLATION

- 1 Your TV set is equipped with a polarized AC line plug (one blade of the plug is wider than the other).



(POLARIZED-TYPE)

This safety feature allows the plug to fit into the power outlet only one way. Should you be unable to insert the plug fully into the outlet, try reversing the plug. Should it still fail to fit, contact your electrician.

- 2 Operate the TV set only from a power source as indicated on the TV set or refer to the operating instructions for this information. If you are not sure of the type of power supply to your home, consult your TV set dealer or local power company. For battery operation, refer to the operating instructions.

- 3 Overloaded AC outlets and extension cords are dangerous, and so are frayed power cords and broken plugs. They may result in a shock or fire hazard. Call your service technician for replacement.

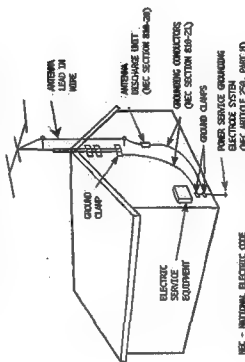
- 4 Do not allow anything to rest on or roll over the power cord, and do not place the TV set where power cord is subject to traffic or abuse. This may result in a shock or fire hazard.

- 5 Do not use this TV set near water — for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near swimming pool, etc.

- 6 If an outside antenna is connected to the TV set, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection requirements for the grounding electrode.

- 7 An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

EXAMPLE OF ANTENNA GROUNDING
AS PER NATIONAL ELECTRICAL CODE



- 8 TV sets are provided with ventilation openings in the cabinet to allow heat generated during operation to be released.

Therefore:

- Never block the bottom ventilation slots of a portable TV set by placing it on a bed, sofa, rug, etc.
- Never place a TV set in a "built-in" enclosure unless proper ventilation is provided.
- Never cover the openings with a cloth or other material.
- Never place the TV set near or over a radiator or heat register.

To avoid personal injury:

- Do not place a TV set on a sloping shelf unless properly secured.
- Use only a cart or stand recommended by the TV set manufacturer.
- Do not try to roll a cart with small casters across thresholds or deep pile carpets.
- Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.

USE

- 10 Caution children about dropping or pushing objects into the TV set through cabinet openings. Some internal parts carry hazardous voltages and contact can result in a fire or electrical shock.

- 11 Unplug the TV set from the wall outlet before cleaning. Do not use liquid or an aerosol cleaner.

- 12 Never add accessories to a TV set that has not been designed for this purpose. Such additions may result in a hazard.

- 13 For added protection of the TV set during a lightning storm or when the TV set is to be left unattended for an extended period of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to product due to lightning storms or power line surges.

- 14 A TV set and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the TV set and cart combination to overturn.



SERVICE

- 15 Unplug this TV set from the wall outlet and refer servicing to qualified service personnel under the following conditions:

A. When the power cord or plug is damaged or frayed.

B. If liquid has been spilled into the TV set.

C. If the TV set has been exposed to rain or water.

D. If the TV set does not operate normally by following the operating instructions. Adjust only those controls that are covered in the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the TV set to normal operation.

E. If the TV set has been dropped or damaged in any way.

F. When the TV set exhibits a distinct change in performance — this indicates a need for service.

- 16 Do not attempt to service this TV set yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

- 17 When replacement parts are required, have the service technician verify in writing that the replacement parts he uses have the same safety characteristics as the original parts. Use of manufacturer's specified replacement parts can prevent fire, shock, or other hazards.

- 18 Upon completion of any service or repairs to this TV set, please ask the service technician to perform the safety check described in the manufacturer's service literature.

- 19 When a TV set reaches the end of its useful life, improper disposal could result in a picture tube implosion. Ask a qualified service technician to dispose of the TV set.

- 20 Note to CATV system installer.

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.



TABLE OF CONTENTS

CONNECTIONS

Checklist	5
Front & Rear Panel Diagrams	5
Cable Connections	6
Audio Video Connections — Stereo & PIP	7
Connecting to a Camcorder	7
Connecting S-VHS Video Accessories	8
Connecting to an External Amplifier	8
Connecting to AV Compu Link	9
Capable Components	9

GETTING STARTED

Remote Controls	10
Power	11
Adjusting Volume	11
Changing Channels	11
Remote Programming	12
CATV Codes	12
VCR Codes	13

MENU FUNCTIONS

Using the Menu System	14
INITIAL SETUP	14
Auto Tuner Setup	15
Channel Summary	15
Tuner Mode	16
Auto Demo	16
PICTURE SETTINGS	17
Tint	17
Color	17
Picture	17
Bright	17
Detail	17
Noise Mute	17
Set Video Status	17
SOUND ADJUST	18
Bass	18
Treble	18
Balance	18
MTS (Multi-Channel Stereo Sound)	18
Sound Advice	18

GENERAL ITEMS

Set Clock	19
On/Off Timer	19
Set Lock Code	20
TV Speaker	20
Audio Out	20
Language	20
Closed Caption	20

BUTTON FUNCTIONS

PIP	21
2-Tuner PIP	21
Source	21
Freeze	21
Move	21
Display	22
Closed Caption	22
Video Status	22
Sleep Timer	22
Hyper Surround	23
100+	23
VCR	23
TV/Video	23
Mute	23
Return+	23
Number Buttons (10 Key Pad)	23

APPENDICES

Limited Warranty	24
Authorized Service Centers	25
Troubleshooting	26
Specifications	27



CONNECTIONS

CONNECTIONS CHECKLIST

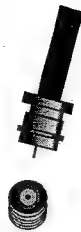
READ ME BEFORE CONNECTIONS

- 1) Refer to the connection instructions in the user's guide for each component you plan to connect (they will provide more information about their products).
- 2) Most **AV input jacks and plugs are color coded:**
 - Yellow plugs are Video connections
 - Red plugs are for Right Audio connections
 - White plugs are Left Audio (Mono) connections
- 3) **Perform one hookup at a time.** If you have many accessories to connect, make sure each connection is correct by checking to see that it works properly before attempting the next connection.
- 4) **Unplug the power cord between each connection.**
- 5) **Each jack on the back of the TV is labeled.** If you read these instructions and still do not fully understand the connections process, seek assistance.

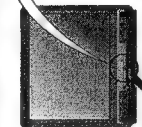
AV input plug



RF Connectors



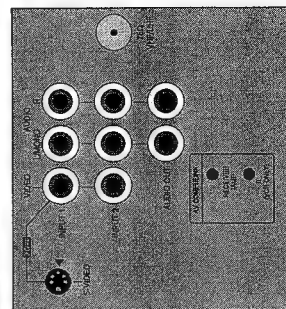
FRONT AND REAR PANEL DIAGRAMS



NOTE:

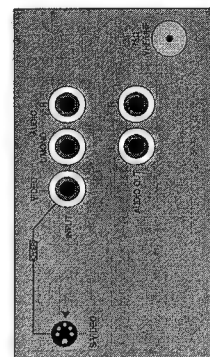
There is a common front panel for all models in this user's guide.

• Placement of jacks may vary slightly depending on model number.



REAR PANEL DIAGRAM

AV-35750 • AV-32750 • AV-27750



REAR PANEL DIAGRAM

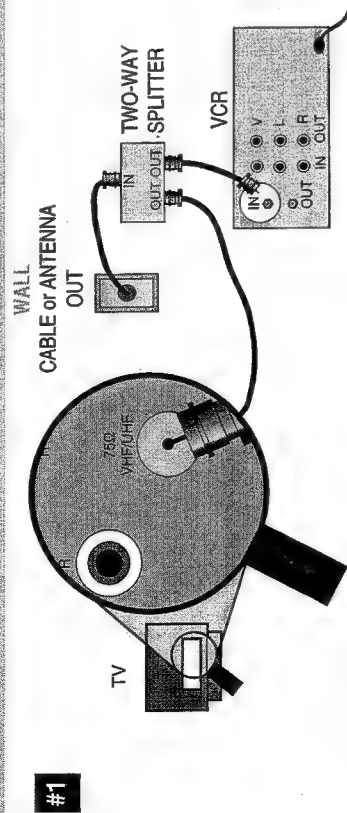
AV-32730 • AV-32720 • AV-27730

(The AV-27730 does not have an S-Video Input)

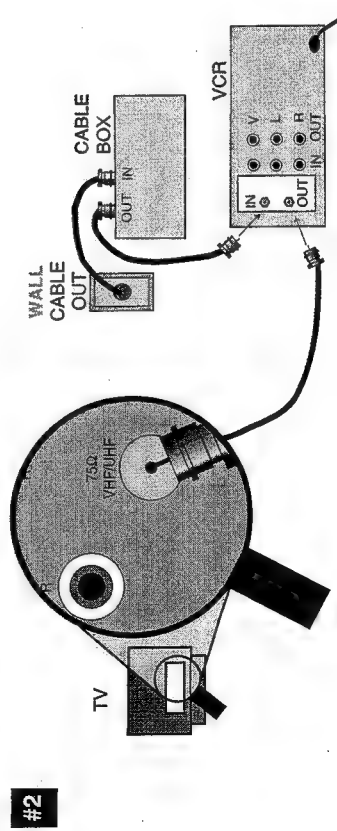
6 CONNECTIONS

CABLE CONNECTIONS

There are two basic types of antenna or cable hookups. If you have an antenna, or have a cable TV system that does not require you to use a cable box to tune channels, use diagram #1. If you have a cable system that requires you to use a cable box to access any or all channels, use diagram #2.



- 1) Cable or antenna wire out from wall in to splitter RF input.
- 2) Out from Splitter output in to VCR RF input.
- 3) Out from Splitter output in to TV VHF/UHF.



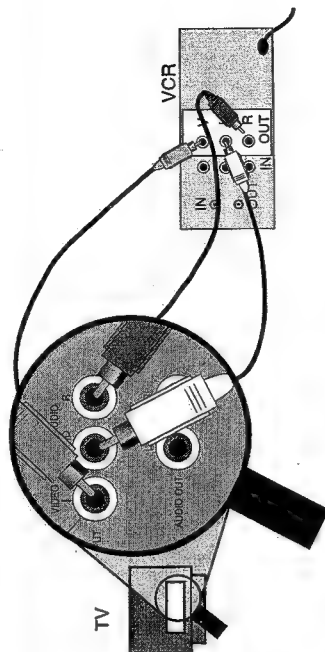
- 1) Cable Wire out from wall in to cable box input.
- 2) Out from cable box in to VCR RF input.
- 3) Out from VCR RF output in to TV VHF/UHF input.

□ Refer to the VCR and/or cable box instructions regarding their unit's RF output.

7 CONNECTIONS

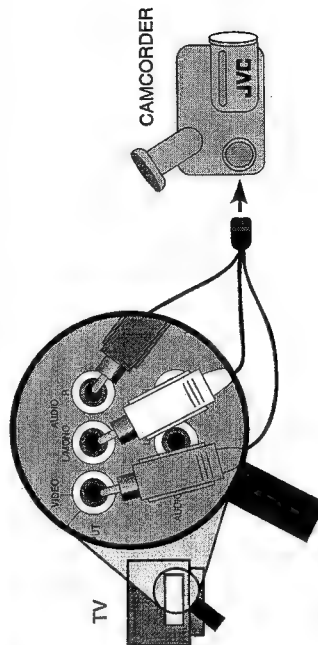
AUDIO/VIDEO CONNECTIONS — STEREO & PIP

To get stereo sound from a hi-fi stereo VCR, you must connect it to the TV using Audio/Video cables.



- 1) Yellow video cable out from VCR in to TV Video input jack.
 - 2) White audio cable out from VCR Left in to TV Left Audio input jack.
 - 3) Red audio cable out from VCR Right in to TV Right Audio input jack.
- If your VCR is mono it has only one audio out jack, connect it to TV L/Mono input.
- Refer to your VCR's instructions.

CONNECTING TO A CAMCORDER

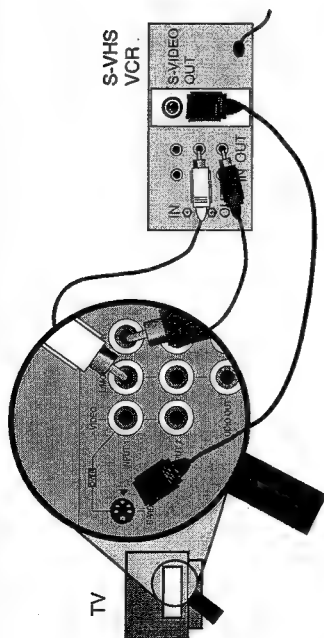


Connect a camcorder to your TV.

- 1) White audio cable out from camcorder in to TV Left Audio input jack.
 - 2) Yellow video cable out from camcorder in to TV Video input jack.
 - 3) If you have a stereo modal camcorder, Red audio cable out from camcorder in to TV right audio input jack.
- Refer to the camcorder's instructions.

8 CONNECTIONS

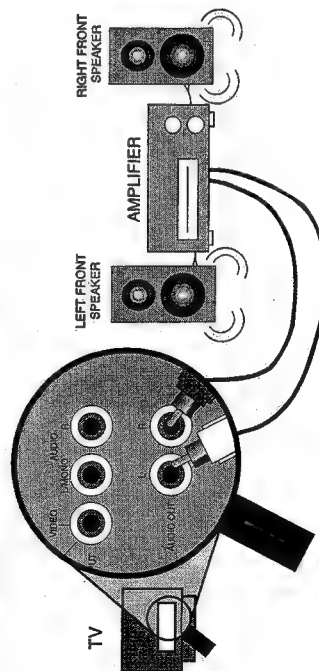
CONNECTING S-VHS VIDEO ACCESSORIES (VCR OR CAMCORDER)



Keeping the audio connections the same as for a non-S-VHS VCR or camcorder (page 7), use the special S-VHS cable that came with the VCR or Camcorder. Illustration is of S-VHS VCR hookup.

- 1) S-VHS Plug out from VCR in to TV's S-Video input.
- Refer to your VCR or camcorder instructions.

CONNECTING TO EXTERNAL AMPLIFIER



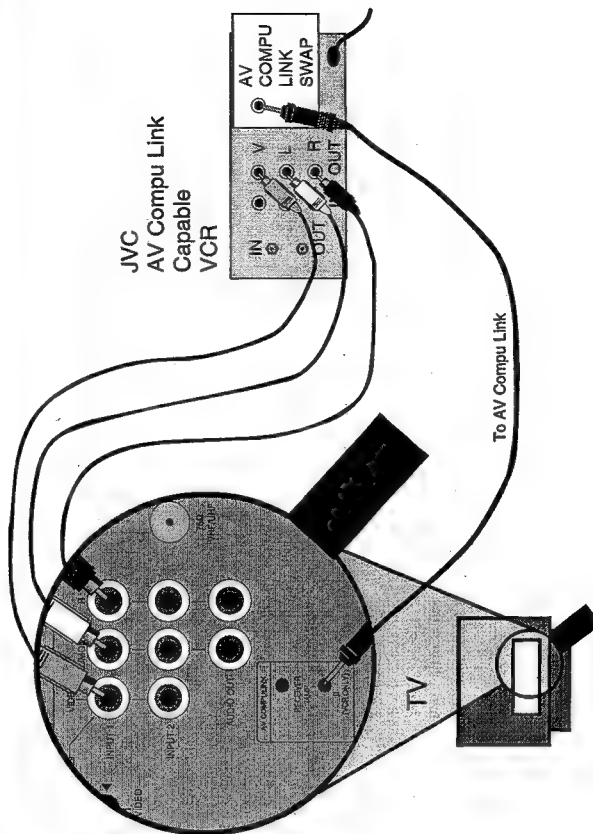
Set the TV Speaker to OFF (page 20), switch the audio output to VAR1 (page 20), and adjust the sound with the TV remote's VOLUME +/- button (page 11.)

- 1) White audio cable out from TV Left Audio output jack in to Amplifier [Left] input.
 - 2) Red audio cable out from TV Right Audio output jack in to Amplifier [Right] input.
- Refer to the amplifier's instructions.

9 CONNECTIONS

CONNECTING TO JVC AV COMPU LINK CAPABLE COMPONENTS

AV Compu Link makes playing video tape totally automatic. Simply insert a pre-recorded tape* into the VCR, and the VCR automatically turns on and starts playing. At the same time, the VCR sends an AV Compu Link signal to the television telling it to turn on and switch to the correct video input.



NOTES:

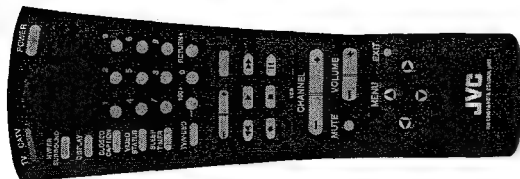
- 1) The AV Compu Link cable has a Male 3.5 mm (mono) mini plug on each end.
- 2) If your JVC brand VCR has A Code/B Code Remote Control Switching (see VCR instructions), using VCR A Code will switch the TV to Video Input 1. Using B Code will switch the TV to Video Input 2.
- 3) To connect a JVC HiFi receiver or amplifier for a completely automated home theater, see the HiFi receiver's instructions for detailed hookup diagrams.

* In order for AV Compu Link to work, the recording tabs must be removed from the VHS tape.

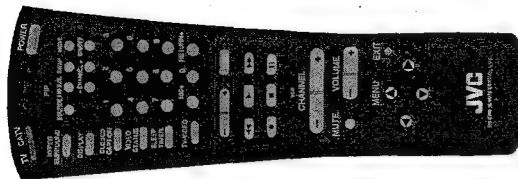


GETTING STARTED

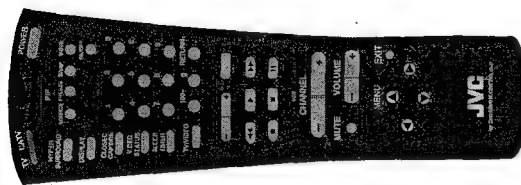
REMOTE CONTROLS



RM-C743
AV-32720



RM-C742
AV-35750
AV-32750
AV-27750



RM-C741
AV-32730
AV-27730

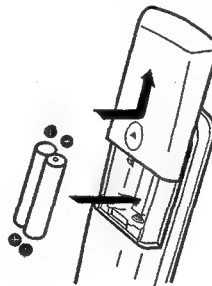
Changing and Inserting Batteries.

Use only size AA batteries.

- 1** Push down on the remote's battery cover and slide towards the bottom to remove it.
- 2** Insert the two supplied AA batteries, carefully noting the + and - markings on the batteries and remote control. To avoid a short circuit, insert "-" end first.
- 3** Slide the cover back into place until it clicks into position.

NOTES:

- ☐ If it takes more than a minute to change the batteries, you may have to reprogram the CATV and/or VCR codes (see page 12-13.)
- ☐ If the remote control acts erratically, replace the batteries. Battery life is usually six months to one year.
- ☐ We recommend the use of alkaline batteries for longer battery life.




GETTING STARTED



POWER

- ☐ Make sure that the TV/CATV switch is set to TV. Switch to CATV only if you plan to operate a cable box.
- ☐ Press the Power button on the remote control or the TV front panel. The On-Timer lamp will glow red.
- ☐ To turn the power off, press the Power button again. The On-Timer lamp will go out.
- ☐ The On-Timer lamp remains on while the On/Off Timer Function is active (see page 19).

ADJUSTING VOLUME

- 1** Press the VOLUME button on the front panel or remote control. The volume slidebar will appear.
- 
- 2** Press the MUTE button to instantly turn the volume off. To restore the volume to the previous level, press the MUTE button again.

CHANGING CHANNELS

- 1** 10 Key Direct Access.
 - Press the numbers on the remote's 10 key pad.
 - For single-digit channel numbers press 0, then the number.
 - For channels above 100, press the 100+ button plus the 2-digit number.
- 2** CHANNEL +/- button.

Press the CHANNEL +/- button, it will scan the channels in order. When you scan channels, any station IDs that you have set scroll across the bottom of the screen.

Note: After you operate the Auto Tuner Setup, all of the blank, or empty, channels will be removed from scanning so that there is no noise or channel snow when you scan, only active channels.
- 3** Return.

Press and release the RETURN+ button to return to the previous channel. First, select a channel (game #1). Then, select another channel (game 2) with the 10 key pad and push the RETURN+ button to flip directly back and forth.
- 4** Return+.

Press and hold down the RETURN+ button for three seconds. The message, "RETURN CHANNEL PROGRAMMED!" will appear and you can scan as you wish. Press RETURN+ again and you will go back to the Return+ channel.

To cancel a Return+ channel, press and hold down the RETURN+ button for another three seconds and the message, "RETURN CHANNEL CANCELED!" appears.

- ☐ Pressing a number key or turning the set off will also cancel a Return+ channel.



12 REMOTE PROGRAMMING

SETTING THE CATV & VCR CODES

CABLE BOX SETUP FOR REMOTE CONTROLS

- Determine the correct code from the "CATV Codes" chart below.
- Slide the 2-Way Mode Selector Switch to CATV.
- Press and hold down the DISPLAY button.
- Enter the 2-digit code with the 10 key pad while continuing to hold down DISPLAY button.
- Release the DISPLAY button.
- Confirm the operation of the cable box.

Many cable box brands have more than one code. If the first code does not work, try the other codes listed.

CATV Codes

Manufacturer	Code	Manufacturer	Code
Anchor	00 17 18	SL Marx	17 18
Cablema	00 18	Samsung	10 11 15 17 23
Cableview	17 18	Scientific Atlanta	07 08 21 22
Century	17 18	Signal	12 15 17 23
Citizen	17 18	Sprucer	10 11
Curtis	07 08 21 22	Standard Components	17 18
Diamond	00 18	Stargate	15 17 18 23
Esle	12 15	Televue	15 17 23
Eastern	14	Tecon	00 17 25
GC Electronics	17 18	Unika	00 18
Gemini	03	Universal	17 18
General Instrument	00 01 02 03 24 25	Videoway	06 13 20
Gerard	17 18	Viewstar	12 15
Harrin	09 14 16	Zenith	06 13 20
Jerrold	00 01 02 03 24 25		

VCR SETUP FOR REMOTE CONTROLS

The remote is pre-programmed with the VCR codes for power on and power off, play, stop, fast-forward, rewind, and channel up and down.

- Determine the correct code from the "VCR Codes" chart (page 11).
- Slide the 2-Way Mode Selector Switch to TV.
- Press and hold down the DISPLAY button.
- Enter the 2-digit code with the 10 key pad while continuing to hold down DISPLAY button.
- Release the DISPLAY button.
- Confirm the operation of the VCR.

Many VCR brands have more than one code. If the first code does not work, try the other codes listed.
 IF your VCR does not respond to any of the codes listed for the manufacturer, use your VCR remote control.



13 REMOTE PROGRAMMING

VCR Codes

Manufacturer	Code	Manufacturer	Code
Admiral	06 21 25 27	Images	30
Alwa	03 17 18 19 20 21 22	ITT	10 17 19 21
Alcal	28 31	J.C. Penny	02 03 05 10 18 25 31
Asira	03 10 18 29 30 31	Jensen	17 20
Audio Dynamics	17 18	JVC	00 10 17 19
Aventura	03 17 18 19 20 21 22	JVC "B"	01
Baumark	02 03 04 05 06 34	Kenwood	17 18 20
Belcor	22 33	KHL	20 21 22
Bel & Howell	07 11	Loyds	03 17 18 20 21 22 23 31
Broksonic	08 22 28	Logik	03 11 13 17 19 19 21 25 31
Candle	03 10 18 29 30 31	Magnasonic	03 10 18 22 29 30 31 33
Canon	02 03 04 05 06 12	Magnavox	05 12 16 21 31
Cape Hart	25 34	Magnin	03 10 18 29 30 31
Camera	03 10 18 29 30 31	Marantz	18
Cassio	10 21 29 31 33	Marla	10 21 29 31 33
Celortyne	18	Matsui	03 10 11 17 18 20 21 22 29
Craig	03 07	Megasonic	02 07 10 32
Crosley	03 17 18 19 20 21 22	Memorex	07 10 11 21 25
Curtis	03 10 18 22 29 30 31 33	MGA	13 31
Cyberex	02 03 04 05 06 12 25 34	MGN	03 10 18 29 30 31
Deawoo/Dayton	22 33	Midland	02 03 04 05
DBX	03 06 17 18 19 28 31 34	Minolta	02 16 23 29 31
Danon	02 03 04 05 06 34	Mitsubishi	13 25 27
Dumont	03 10 18 29 30 31	Mont. Ward	06 21 22
Dynatech	03 17 18 19 20 21 22	MTC	03 10 17 18 19 20 21 22 28
Dynatone	10 21 29 31 33	Multitech	03 06 17 18 19 28 31 34
Electrohome	13 26	National	02 03 04 05
Electron	02 03 04 05 06 34	NEC	17 18
Electrophonic	10 17 19 20	Nikko	10 21 29 31 33
Emerson	07 08 09 10 13 16 25 28	Olympus	02 03 04 25 27 34
Encore	02 03 04 05 06 12 25 34	Optonica	05 06 12 21
Everex	02 16 23 29 31	Panasonic	02 03 04 25 31 34
Fisher	07 11 24 32	Paxsonic	03 10 18 29 30 31
Funai	03 17 18 19 20 21 22	Pentax	02 23 25
General Electric	03 04 05 06 25 34	Philco	02 03 04 05 06 12 22 25
Go Video	30	Philips	05 12 16 21 25
Goldstar	10 21 29 31 33	Pioneer	02 16 23 29 31
Granada	02 03 04 05 06 12 25 34	Portland	06 23 34
Harley Davidson	03 17 18 19 20 21 22	ProScan	02 03 04 05 11 13 21
Hamm Kardon	13	Pulser	03 10 18 22 29 30 31 33
Harvard	22	Quasar	02 03 04 25 34
Hitachi	02 16 23 29 31	Randix	10 21 29 31 33
Homeline	10 21 29 31 33	Realistic	07 10 11 21 25
		Sansung	03 10 18 29 30 31
		Sansul	17 19 21
		Sanyo	07 11 16
		Scott	08 09 13 28



USING THE MENU

USING THIS GUIDE

SYMBOLS USED IN THIS GUIDE:

- ▲▼ Up and down arrows indicate you should press the Menu Up or Menu Down button. This function allows you to:
 - Move vertically in the main menu
 - Move through a submenu, or
 - Move to the next letter, number, or other choice in a submenu
 - Back up to correct an error
- ◀▶ Left and right arrows indicate you should press the Menu Left or Menu Right button to:
 - Select the highlighted item, or
 - Select the options in a submenu

[PRESS] The "Press Button" means press that button on the remote control

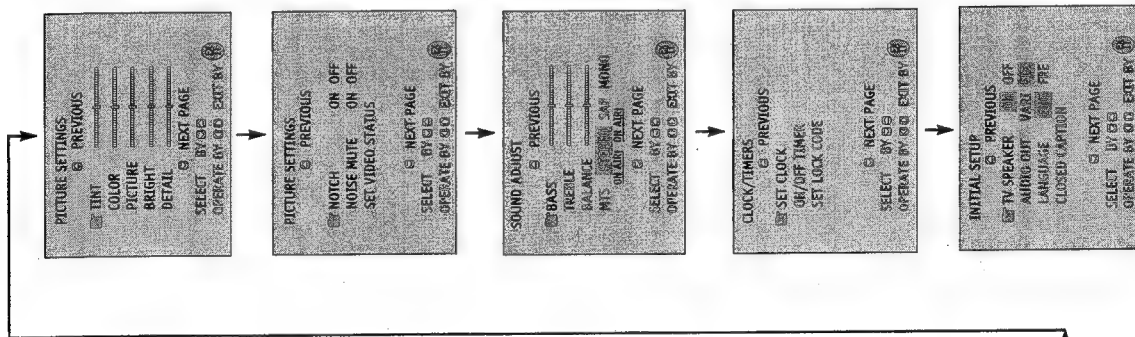
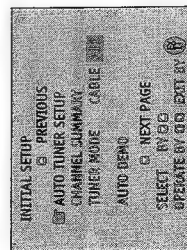
[HELP] The helping hand points to the active, or highlighted item

Button names are always **WRITTEN IN SMALL CAPITAL LETTERS** in order to avoid confusion with menu functions of the same name.

WORKING THE MENUS

To use the Menu, press any of the remote's 4-way cursor control buttons and the JVC scrolling menu will appear on the screen. The item that appears yellow is the selected item. Factory settings begin with the Picture Settings menu. However, since Initial Setup is so important, this guide begins here.

*Please note that the menu screens depicted in this instruction book are not actual representations of the screens but are intended to illustrate the order and wording of the menus. The actual menu backgrounds are clear in color.



INITIAL SETUP



NOTES:

Nearly all cable companies use one of the following:

- STD (Standard)
- HRC (Harmonically Related Carrier)
- IRC (Incrementally Related Carrier)

CHANNEL SUMMARY

You can add or delete channels from the channel scanning, and lock out any "unauthorized" viewers from up to all 181 channels.

- ▲▼ To CHANNEL SUMMARY
- ◀▶ To operate

SCAN

You can manually set channels to scan that were too weak to be picked up by Auto Tuner Setup. Or, if a channel was too weak for a good picture but was picked up anyway, delete it by removing the ✓.

- [PRESS]** CHANNEL -/+ to select the channel
- ▲▼ To the SCAN column
- ◀▶ To include or delete from scan

CHNO	SCAN	ID	A	CHNO	SCAN	ID	A
01	✓			06	✓		
02	✓	CBS	✓	07	✓		
03	✓	ABC	✓	08	✓		
04	✓	NBC	✓	09	✓		
05	✓			10	✓		

[PRESS] EXIT when finished

- Some cable systems experience interference from radio frequencies on Cable Channel 95. You can delete this channel from scanning by removing the ✓.

STATION ID

You can label up to 25 channels with a station ID of up to four letters, using numbers, letters, or common keyboard characters.

- ▲▼ To ID column and ◀▶ to operate

STATION ID	CHANNEL 07

- ▲▼ To choose each letter and ◀▶ to accept and move to the next letter
- ▲▼ To FINISH and ◀▶ to save

AUTO TUNER SETUP

During Auto Tuner Setup, the TV will automatically scan through all available channels and memorize the active ones.

- ▲▼ To AUTO TUNER SETUP
- ◀▶ To operate



- ▲▼ For AUTO (STD, HRC, IRC)**
- ◀▶ To operate



Programming takes 3 to 4 minutes



** AUTO (STD, HRC, IRC) will access all over-the-air broadcast channels and more than 99% of cable systems. If the channels on your cable system are not selected after this procedure, use (AUTO OTHERS).

- Noise Mute will not work while Auto Tuner Setup is working.
- During Auto Tuner Setup the TV will be programmed to receive only active channels. Once the channels are activated here, they are automatically included in scan.
- Some weak or distant channels may be included in scan. You can delete them from scanning by removing the "✓" mark in the SCAN column in the Channel Summary menu.

...continued from previous page.

NOTES:

There are two sections in Channel Summary.

To move up and down a column (e.g. from channel to channel) use the CHANNEL+/– button.

To move from item to item (e.g. from channel number to start-to-lock) use the arrow up/down keys.

Noise Mute will not work while you operate the Channel Summary.

CHANNEL GUARD / LOCK

- ▲▼ To CHANNEL SUMMARY
▲▼ To operate

CHNO	SCAN	ID	CHNO	SCAN	ID
01	✓		06	✓	
02	✓	CBS	07	✓	
03	✓	ABC	08	✓	
04	✓	NBC	09	✓	
05	✓		10	✓	

- ▲▼ To a column

(PRESS) 0 (zero) to lock or unlock a channel

Use the CHANNEL +/- button to go to any other channel you want to lock

CHANNEL GUARD MESSAGE

This message appears when someone attempts to watch a guarded channel:

THIS CHANNEL IS LOCKED BY
CHANNEL GUARD.
PLEASE ENTER LOCK CODE BY
10 KEY PAD TO UNLOCK IT.

To watch a locked channel, enter the lock code on the 10 key pad.

If the wrong lock code is entered this message will appear:

INVALID LOCK CODE

TUNER MODE

Tuner Mode lets you choose between over-the-air broadcasts (AIR) or cable (CABLE) stations.

- ▲▼ To TUNER MODE
▲▼ To operate

TUNER MODE CABLE AIR

(PRESS) Exit when finished

- ☐ When you set the Tuner Mode to CABLE, the channel display will appear blue. When set to AIR, the display will appear yellow.

- ☐ Cable mode requires a cable hookup. see page 6 for details.

AUTO DEMO

The Auto Demo is an onscreen demonstration of the features of your JVC television. Let it run, it takes about six minutes, and you will see exactly what your new TV can do.

- ▲▼ To AUTO DEMO
▲▼ To operate

JVC
FEATURE
DEMONSTRATION

(PRESS) Any key to stop the Auto Demo

- ☐ You can also start the Auto Demo when you push the front panel CHANNEL+ and VOLUME– buttons at the same time.

NOTES:

There is no Notch Filter on the AV-21780.

NOTCH

The Notch Filter sharpens the edges of graphics and text.

- ▲▼ To NOTCH
▲▼ To activate or deactivate

NOISE MUTE

Eliminates noise from channels that are not broadcasting or are too weak.

- ▲▼ To NOISE MUTE
▲▼ To turn ON/OFF

- ☐ Noise Mute does not operate during the Auto Tuner Setup or while in the Channel Summary screen.

SET VIDEO STATUS

Save Picture Settings as "Choice".

- ▲▼ To SET VIDEO STATUS
▲▼ To operate

TINT
COLOR
PICTURE
BRIGHT
DETAIL
SAVE AS CHOICE

- ▲▼ To operate the TINT option
▲▼ To move to the next option

Repeat the above steps to set each option.

- ▲▼ To SAVE AS CHOICE

- ▲▼ To save settings and exit

- ☐ Access "Choice" by pressing the VIDEO STATUS button on the remote control.

SOUND ADJUST

18

NOTES:

MTS has no effect on normal sound broadcasts.



BASS

- ▲▼ To BASS slider
- ▶ To emphasize bass
- ◀ To reduce bass
- ▲▼ To move to next



TREBLE

- ▲▼ To TREBLE
- ▶ To increase treble
- ◀ To decrease treble
- ▲▼ To move to next



BALANCE

- ▲▼ To BALANCE
- ▶ To shift balance to the right
- ◀ To shift balance to the left
- ▲▼ To move to next

Some Sound Advice

You can tell if a program is broadcast in stereo by the position of the ON AIR arrow in the MTS menu. Unfortunately, it is common for some cable companies to squish the transmission of stereo programs to mono because they only have mono equipment. If connected to a cable system, the sound is at the mercy of that cable company — if they broadcast in mono, you receive mono sound regardless of the original stereo programming.

Fortunately, most programs that are broadcast in stereo are aired on the major television networks. If you connect your TV to an antenna instead of cable, and set the Tuner Mode (page 16) to "Air," instead of "Cable," you will be able to pick up stereo broadcasts in stereo.



MTS (Multi-Channel Television Sound)

MTS technology gives you a choice among stereo, mono, and Second Audio Programs (SAP).

- ▲▼ To MTS



- ◀▶ To select the mode

(The ON AIR arrow tells you if the current signal contains stereo or SAP)

- ☐ Keep the TV in STEREO mode to get the fullest sound quality.
- ☐ SAP will allow you to hear an alternative soundtrack, if available.
- ☐ Choose MONO only to reduce excess noise in a program.



SET CLOCK

The Clock is the heart of all timer functions. You must set the clock before timer functions will work.

- ▲▼ To SET CLOCK
- ◀▶ To operate



- ◀▶ To set the hour (AM/PM)
- ▼ To move to minutes
- ◀▶ To set the minutes
- ▼ To move to START CLOCK when done with settings
- ◀▶ To start the clock

THANK YOU!!

- ☐ If the TV is unplugged or you experience a power outage, you must reset the clock in order for any of your timer functions to work. If you attempt to operate a Timer and you did not set the clock you will get the following message:

POWER INTERRUPTED
WOULD YOU SET CLOCK FIRST?

YES
NO

After a power interruption clock will be cancelled and you will get this message if you try to use the On/Off Timer:

YOU CANNOT OPERATE
ON/OFF TIMER

GENERAL ITEMS

19

NOTES:

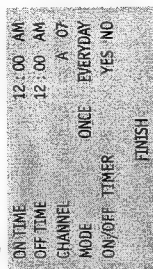
If you want to set the TV's clock to be perfectly timed with another household clock or timer, set the TV clock and move to START CLOCK. At the precise moment that the other timer device changes to the same time as the TV clock, press the arrow button ◀▶ to start the clock.



ON/OFF TIMER

You tell the TV to turn on and off. Use it as an alarm to wake up, as a program reminder, or as a decoy when you're out of the house.

- ▲▼ To ON/OFF TIMER
- ◀▶ To operate



- ◀▶ To set the hour (AM/PM) you want the TV to turn on
- ▼ To move to minutes
- ◀▶ To set the minutes
- ▼ To accept ON TIME and to move to OFF TIME (set time again)
- ▼ To move to CHANNEL
- ◀▶ To select channel
- ▼ To move to MODE
- ◀▶ Choose ONCE or EVERYDAY
- ▼ To YES NO
- ◀▶ Choose YES for on, NO for off
- ▼ To FINISH
- ◀▶ To save settings

- ☐ In order for ON/OFF Timer to work, the clock must be set.


- ☐ ON/OFF Timer cannot be set to locked or guarded channels.

NOTES:
To activate the Closed Caption settings that you set here, see page 22 for details.
Closed Captions and Text Information are usually found on CC1 or T1, CC2, CC3, CC4 and T2, T3, and T4 work, but are for future purposes. Chances are that you will find the captions or text on CC1 or T1.

SET LOCK CODE

The Lock Code locks and unlocks Channel Guard.

- ▲▼ To SET LOCK CODE
- ▲▼ To operate

The padlock  appears
Press the access code zero (0)



- ▲▼ To the first number place
- ▲▼ To choose the number
- ▲▼ To move to the next place
- Continue for all three numbers
- ▲▼ To FINISH
- ▲▼ To save settings and exit

- If you forget the Lock Code you can set another one the same way.
- After a power interruption, you must reset the lock code.

TV SPEAKER

You can listen to the TV speakers, or if your set is connected to a stereo, turn them off to listen to the stereo speakers.

- ▲▼ To TV SPEAKER
- ▲▼ To turn the speaker ON or OFF



- ▲▼ To operate
- TV Speaker will be cancelled after a power interruption.
- Before you set TV Speaker from Off to On, make sure that the volume level is low!

Continued on next page...

...continued from previous page.

AUDIO OUT

Select fixed level or variable level audio output signals.

- ▲▼ To AUDIO OUT
- ▲▼ To FIX or VARI

VARI: Adjust the volume of the external speaker by using the TV VOLUME +/- button or the TV's remote.

FIX: Adjust the volume of the external speaker with the audio device controls.

- When using external amplifiers and speakers, shut off the TV's speakers (page 20).

LANGUAGE

Choose from English or French onscreen menus and displays.

- ▲▼ To LANGUAGE
- ▲▼ To activate



EXIT when finished

CLOSED CAPTION

If included in a program, you can view closed captions or text information.

- ▲▼ To CLOSED CAPTION
- ▲▼ To operate



PIP (PICTURE IN PICTURE)

PIP allows you to view two pictures simultaneously.

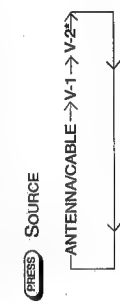
- (PRESS) (PIP) On/Off

2-TUNER PIP

(AV-35750, AV-32750, and AV-27750 ONLY.) CHANNEL +/- buttons in the PIP section of the remote control make PIP so simple to use. You don't need to hook up a VCR or other video source to get PIP. We built in a second tuner for the easiest PIP to use in the industry.

SOURCE

You can select from the various inputs you may have hooked up to your TV as the source for the PIP screen.



*Only available on AV-35750, AV-32750 and AV-27750.

SWAP

You can swap the picture in the main screen with the picture in the PIP screen.

- (PRESS) SWAP

FREEZE

You can freeze the main screen into a PIP picture, or freeze the PIP screen.

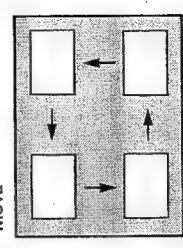
- (PRESS) FREEZE

- When PIP is off, Freeze will put the main screen into a still PIP picture.
- When PIP is on, Freeze will stop the PIP picture.

MOVE

You can move the PIP screen to any of the TV's four corners.

- (PRESS) MOVE



- Each press of the Move button will shift the PIP picture one position.

PIP CHANNEL +/-

On models with PIP Channel +/- buttons you can change the PIP channel without going back to the main screen. (You do need to go back to the main screen to change from Cable to Air or Air to Cable.)

NOTES:
The following models have 2-Tuner PIP:
AV-35750
AV-32750
AV-27750
The following models have single tuner PIP:
AV-32730
AV-27730
Model AV-32720 does not have PIP.



LIMITED WARRANTY

JVC

For Canadian model televisions, see separate sheets for Warranty/Garantie and JVC Authorized Service Centers in Canada.

JVC COMPANY OF AMERICA warrants this product and all parts thereof, except as set forth below TO THE ORIGINAL PURCHASER AT RETAIL to be FREE FROM DEFECTIVE MATERIALS AND WORKMANSHIP from the date of original purchase for the period as shown below (the "Warranty Period"). The picture tube is covered for two years.

Model No.	Serial No.	Parts	Labor
		1 YEAR	1 YEAR

This limited warranty is valid only in the fifty (50) United States, The District of Columbia and the Commonwealth of Puerto Rico.

JVC WILL:

If this product is found to be defective, repair or replace defective parts at no charge to the original owner. Such repairs will be made during regular business hours only at JVC authorized service centers. All parts repaired or replaced are warranted for the remainder of this Warranty Period only. All products and parts should be brought to an authorized service center on a carry-in basis except for those models with a screen size larger than 25 inches which are covered on an in-home basis.

YOU MUST:

- Return your products to a JVC authorized service center with a copy of your bill of sale. For the authorized JVC service center nearest you, call toll free (800) 252-5722.
- If service is not locally available, box the product carefully, preferably in its original container, and ship it, insured, to the nearest authorized service center with a copy of the bill of sale and a letter of explanation as to the problem. Call the toll free number above for the address.

WHAT IS NOT COVERED:

- 1) Products which have been subject to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, or if repaired or serviced by anyone other than a service facility authorized by JVC to render such service, or if connected to any attachment not provided with the products, or if the model or serial number has been altered, tampered with, or removed;
- 2) Initial installation, removal for repair, and reinstallation after repair is not covered;
- 3) Operational adjustments covered in the Owner's manual, normal maintenance, video and audio head cleaning;
- 4) Damage that occurs during shipment, due to an act of God, or of consequence to cosmetic changes;
- 5) Signal reception problems and failures due to line power surges;
- 6) Video Pick-up Tubes/CCD Image Sensor, Cartridge, Stylus (Needle) are covered for 90 days from the date of purchase;
- 7) Accessories; and;
- 8) Batteries (except for rechargeable batteries which are covered for 90 days from date of purchase.)

There are no express warranties except as listed above.

THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN.

JVC SHALL NOT BE LIABLE FOR THE LOSS OF USE OF THIS PRODUCT, INCONVENIENCE, LOSS OR ANY OTHER DAMAGES, WHETHER DIRECT, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, WITHOUT LIMITATION, DAMAGE TO TAPES, RECORDS OR DISCS) RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO THE WARRANTY PERIOD SET FORTH ABOVE.

Some states do not allow the exclusion of incidental or consequential damages or limitations on how long the warranty lasts, so these may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary state to state.

If you have questions concerning your JVC product, please contact our Customer Relations Department:
JVC COMPANY OF AMERICA
 DIVISION OF U.S. JVC CORP.
 41 Slater Drive
 Elmwood Park, New Jersey 07407

Refurbished products carry a separate warranty. This warranty does not apply for details of refurbished product warranty. Please refer to the refurbished product warranty information packaged with each refurbished product.



AUTHORIZED SERVICE CENTERS

For Canadian model televisions, see separate sheets for Warranty/Garantie and JVC Authorized Service Centers in Canada.

CALL TOLL FREE (800) 252-5722

- 1) To locate the JVC Authorized Service Center nearest you.
- 2) To purchase parts or accessories.
- 3) For customer relations or hook-up assistance.
- 4) To locate the JVC authorized dealer nearest you.

JVC SERVICE & ENGINEERING COMPANY OF AMERICA DIVISION OF U.S. JVC CORP.

FACTORY SERVICE CENTER LOCATIONS

Dear customer,

In order to receive the most satisfaction from your purchase, read this guide before operating the unit, and before calling for service make sure you check the Troubleshooting pages at the end of this book. In the event that repair is necessary, or for the address nearest you, please refer to the factory service center list below, or within the continental United States, call the toll free number above for an authorized service center. Remember to retain your bill of sale for warranty service.

107 Little Falls Road Fairfield, NJ 07004-2105 (201) 808-9279	1500 Lakes Parkway Lawrenceville, GA 30243-5357 (404) 339-2522	705 Enterprise Street Aurora, IL 60504-8149 (708) 851-7855
5665 Corporate Avenue Cypress, CA 90630-0024 (714) 225-8011	10700 Hammerly Suite 110 Houston, TX 77043 (713) 935-9331	2969 Mapunapuna Place Honolulu, HI 96819-2040 (808) 833-5828
230 Elliot Street Ashland, MA 01721-2377 (508) 881-5923	8192 State Road #4 Davie, FL 33324 (954) 472-1960	890 Dubuque Avenue South San Francisco, CA 94080-1804 (415) 871-2666

Sophisticated electronic products may require occasional service. Just as quality is a keyword in the engineering and production of the wide array of JVC products, service is key to maintaining the high level of performance for which JVC is world famous. The JVC service and engineering organization stands behind our products.

National Headquarters
JVC Service & Engineering Company of America
 Division of U.S. JVC Corp.
 107 Little Falls Road
 Fairfield, NJ 07004-2105

**THERE ARE NO USER
SERVICEABLE PARTS INSIDE
THIS TV TO PREVENT ELECTRIC
SHOCK. DO NOT OPEN
CABINET AND DO NOT
ATTEMPT TO
SERVICE THIS TV YOURSELF.**

SHIPPING INSTRUCTIONS

- Pack the TV in the original carton or one of equivalent size and strength. Use the original foam cushions or equivalent padding.
- Enclose a letter of explanation stating the problem that exists and a copy of the bill of sale.
- Print your home address on both the outside and inside of the shipping carton.
- Send to address nearest you in the list above.

26 TROUBLESHOOTING

PROBLEMS	CHECK
No power	<ul style="list-style-type: none"> See if the power cord became unplugged. Perhaps you have experienced a blown circuit breaker or fuse or a power outage.
No picture or sound	<ul style="list-style-type: none"> The antenna could be disconnected. The input mode (TV or Video) could not be set properly, refer to page 23. The tuner mode (in the menu selection) could be set improperly, refer to page 16. The station may be having difficulties, check to see if other channels are operating normally.
Remote control is not operating	<ul style="list-style-type: none"> Check that the batteries are still working and properly installed. Make sure there are no objects blocking a clear path from the remote to the TV. Check that the TV/CAV switch is in the proper position — set to TV to view television.
You cannot select a certain channel	<ul style="list-style-type: none"> Maybe you are too far from the TV, you must be within 23 feet (or 7 meters). Make sure the channels are programmed. See Channel Summary, page 15. Perhaps the channel is locked, select it with the 10 key pad and follow instructions.
Power turns off	<ul style="list-style-type: none"> Perhaps the On/Off Timer is set, press the power button, check page 19. Make sure the power cord is plugged in. The Sleep Timer may be set.
The clock is wrong	<ul style="list-style-type: none"> The power was interrupted and the clock not reset. Reset the clock, check page 19.
PICTURE	CHECK
Poor color quality	<ul style="list-style-type: none"> Tint and color may be improperly adjusted. Check page 17. Video Status mode may be set to an inappropriate setting. Check pages 17 and 22.
Lines or streaks across the screen	<ul style="list-style-type: none"> There could be interference from another energy consuming appliance, such as a computer, another TV or VCR. Move any other such appliances farther away from the TV.
Spotted picture	<ul style="list-style-type: none"> There could be interference from a running high wattage appliance such as a hair-dryer, vacuum cleaner, or neon sign. You will have to move the antenna away from the source of the interference or change it to a coaxial cable which is less prone to interference.
Double picture (Ghosts)	<ul style="list-style-type: none"> A building or airplane can reflect the original signal producing a second, delayed one. Adjust the antenna position.
Snowy picture/ Image noise	<ul style="list-style-type: none"> The antenna may be damaged, disconnected or turned. Check the antenna connection, page 6. If it is damaged, you will have to replace it.
Screen is 80% black	<ul style="list-style-type: none"> Closed Caption Text Mode is on. Press the Closed Caption button until you select Off.
SOUND	CHECK
Bilingual or stereo programs can't be heard	<ul style="list-style-type: none"> Make sure the MTS mode is properly set. Refer to page 18 for details on setting MTS Modes.
No sound from TV speakers at all	<ul style="list-style-type: none"> TV Speakers may be turned off in the menu, see page 20. The volume may be set at zero (0) or the MUTE button pressed.
NOT A PROBLEM	DON'T WORRY ABOUT THIS, IT'S NORMAL
Static electricity	<ul style="list-style-type: none"> It is normal to feel a surge of static electricity if you brush over or touch the screen.
Occasional crackling sounds	<ul style="list-style-type: none"> It is normal for the TV to emit crackling sounds when turned on or off. Unless the sound or picture become abnormal, this is fine.

27 SPECIFICATIONS


MODEL	AV-27730	AV-27750	AV-32720 AV-32730	AV-32750	AV-35750
Type	Color Television				
Reception Format	NTSC system, BTSC system (Multichannel Sound)				
Reception Range	VHF 2 to 13, UHF 14 to 69 Sub Mid, Mid, Super, Hyper and Ultra bands (181-channel frequency synthesizer system)				
Power Source	AC 120 V, 60 Hz				
Power Consumption	Max. 115W 1.4 A	Max. 120W 1.5 A	Max. 135W 1.8 A		
Screen Size	27" / 69 cm measured diagonally Full square	32" / 78 cm measured diagonally Full square		35" / 89 cm measured diagonally, Full square	
Audio Output	3 W + 3 W				
Speakers	2" x 4 3/4" / 5 x 12 cm oblong type x 2				
Antenna Terminal	75 ohms (VHF/UHF terminal (F-type connector))				
External Input Jacks	Video: 1 Vp-p, 75 ohms Audio: 500 mVrms (-40dB), high impedance Y: 1 Vp-p positive, 75 ohms (negative sync provided) C: 0.286 Vp-p (burst signal), 75 ohms				
S-Video Input Jack	—				
Audio Output Jacks	More than 0 to 1550 mVrms (+6 dBs), low impedance (400 Hz when modulated 100%)				
AV Compu Link Jacks	—	3.5 mm ϕ mini jack x 2	—	3.5 mm ϕ mini jack x 2	—
External Dimensions (W x H x D)	25 7/8" x 23 1/8" x 20 1/2" 65.5 x 58.6 x 51.8 cm	30 1/4" x 25 1/8" x 21 5/8" 76.3 x 64.4 x 54.8 cm		33 7/8" x 30 1/8" x 23 3/4" 86.0 x 76.5 x 60.3 cm	
Weight (lbs./kg.)	73.3 / 33.3	114.0 / 51.8	114.7 / 52.1		
Accessories	Remote control x 1 AA Batteries x 2				

Specifications subject to change without notice.

AV-27750_(US&CA) STANDARD CIRCUIT DIAGRAM

■NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the  symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

- (1)Input signal :Color bar signal
 - (2)Setting positions of each knob/button and variable resistor :Original setting position when shipped
 - (3)Internal resistance of tester :DC 20k Ω /V
 - (4)Oscilloscope sweeping time :H \Rightarrow 20 μ S/div
:V \Rightarrow 5mS/div
:Others \Rightarrow Sweeping time is specified
 - (5)Voltage values :All DC voltage values
- * Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL[EXAMPLE]

- In the PW board :R1209 \rightarrow R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

●Resistance value

- No unit :[Ω]
- K :[K Ω]
- M :[M Ω]

●Rated allowable power

- No indication :1/6[W]
- Others :As specified

●Type

- No indication :Carbon resistor
- OMR :Oxide metal film resistor
- MFR :Metal film resistor
- MPR :Metal plate resistor
- UNFR :Uninflamable resistor
- FR :Fusible resistor

* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

●Capacitance value

- 1 or higher :[pF]
- less than 1 :[μ F]

●Withstand voltage

- No indication :DC50[V]
- Others :DC withstand voltage[V]
- AC indicated :AC withstand voltage[V]

* Electrolytic Capacitors

47/50[Example]:Capacitance value[μ F]/withstand voltage[V]





●Type

- No indication :Ceramic capacitor
- MY :Mylar capacitor
- MM :Metalized mylar capacitor
- PP :Polypropylene capacitor
- MPP :Metalized polypropylene capacitor
- MF :Metalized film capacitor
- TF :Thin film capacitor
- BP :Bipolar electrolytic capacitor
- TAN :Tantalum capacitor

(3)Coils



- No unit :[μ H]
- Others :As specified

(4)Power Supply




-  :B1(136V)
-  :B2(12V)
-  :9V
-  :5V

* Respective voltage values are indicated.





(5)Test Point

-  : Test point
-  : Only test point display



(6)Connecting method

-  : Connector
-  : Wrapping or soldering
-  : Receptacle

(7)Ground symbol

-  : LIVE side ground
-  : ISOLATED(NEUTRAL) side ground
-  : EARTH ground
-  : DIGITAL ground

5.NOTE FOR REPAIRING SERVICE

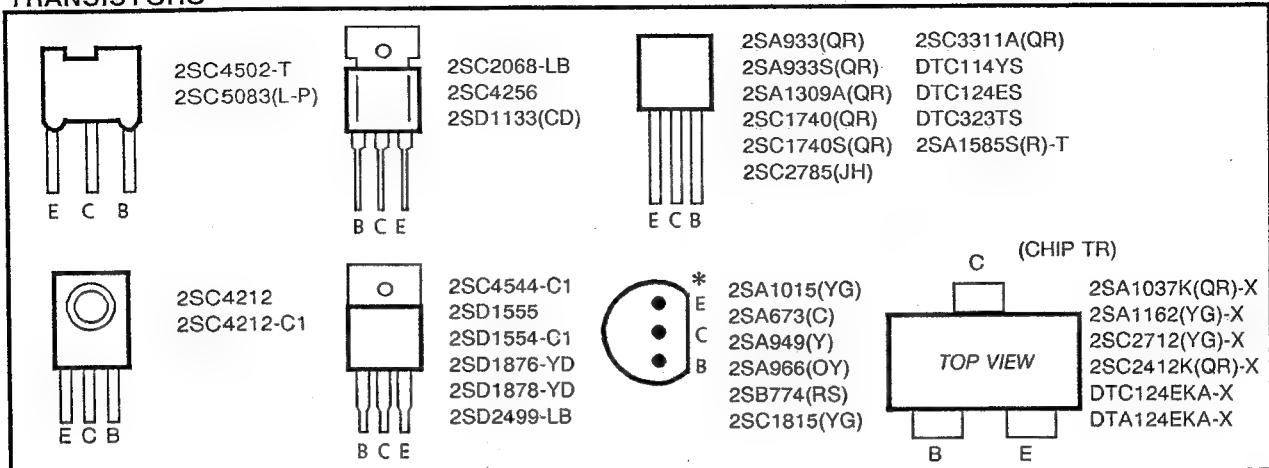
This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : () side GND and the ISOLATED(NEUTRAL) : () side GND. Therefore, care must be taken for the following points.

- (1) Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
- (2) Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.

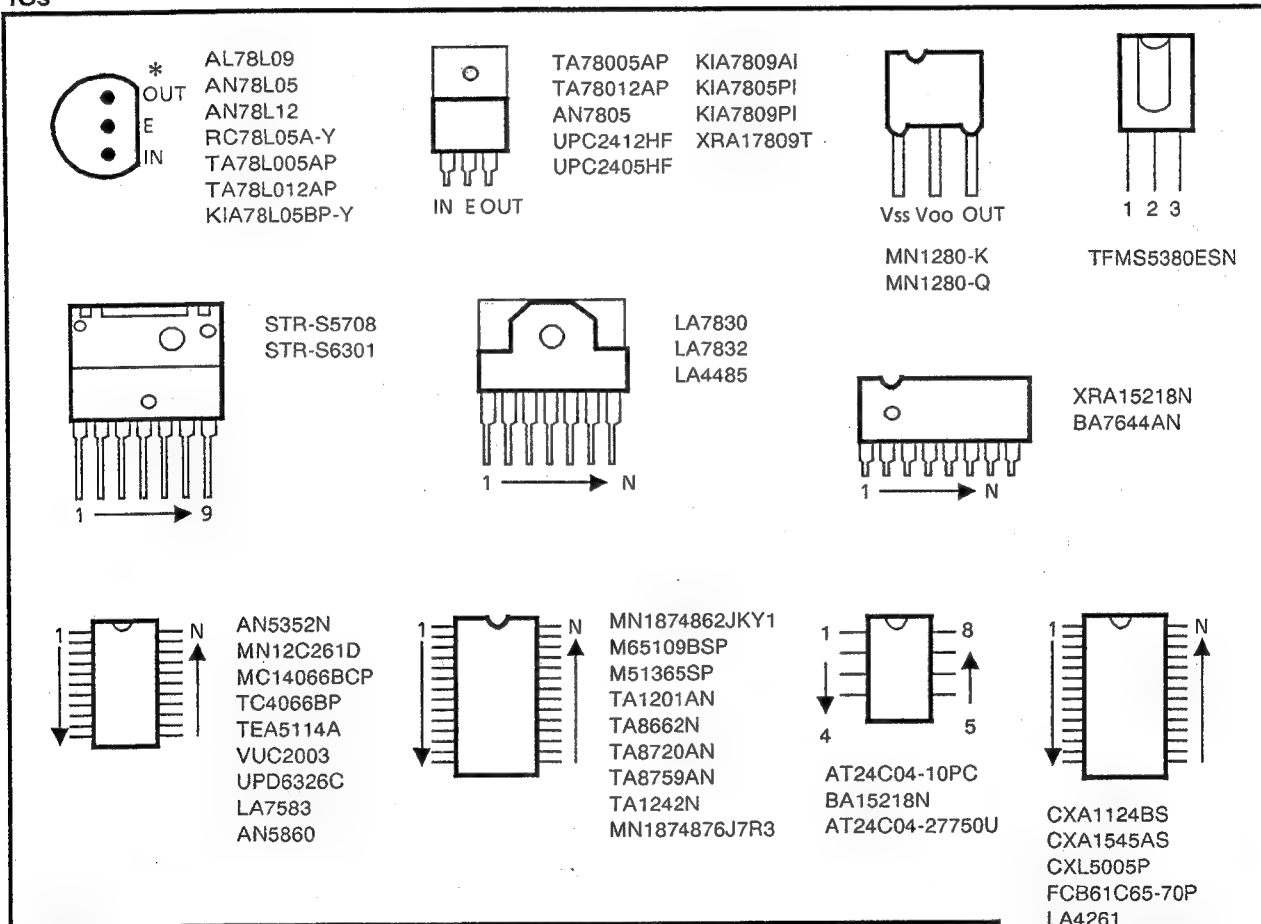
◇ Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

SEMICONDUCTOR SHAPES (* = Bottom view)

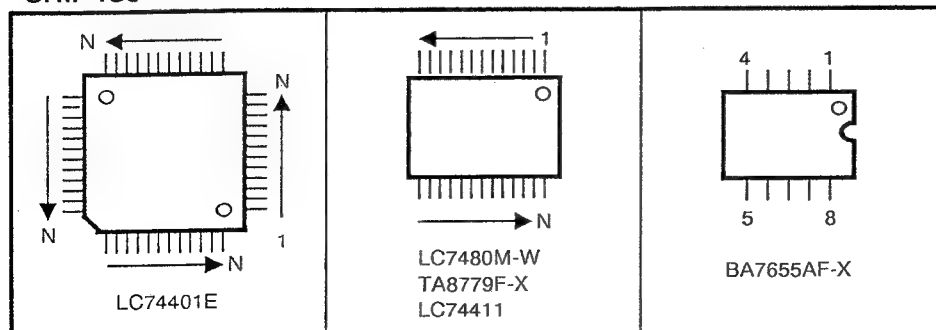
TRANSISTORS



ICs



CHIP ICs



CHANNEL CHART

(US)

MODE	BAND	CHANNEL	TUNER
TV	CATV	REAL DISP.	BAND
○	○	VL 02 03 04 05 06 07	I
	○	VH 08 09 10 11 12 13	II
	○	MID A 14 B 15 C 16 D 17 E 18 F 19 G 20 H 21 I 22	I
	○	SUPER J 23 K 24 L 25 M 26 N 27 O 28 P 29 Q 30 R 31 S 32 T 33 U 34 V 35 W 36	II
×	○	W+1 37 W+2 38 W+3 39 W+4 40 W+5 41 W+6 42 W+7 43 W+8 44 W+9 45 W+10 46 W+11 47	III
	○	HYPER W+12 48 W+13 49 W+14 50 W+15 51 W+16 52 W+17 53 W+18 54 W+19 55 W+20 56 W+21 57 W+22 58 W+23 59 W+24 60 W+25 61 W+26 62 W+27 63 W+28 64	IV
	○	ULTRA W+29 65 W+30 66 W+31 67 W+32 68 W+33 69 W+34 70	

(CA)

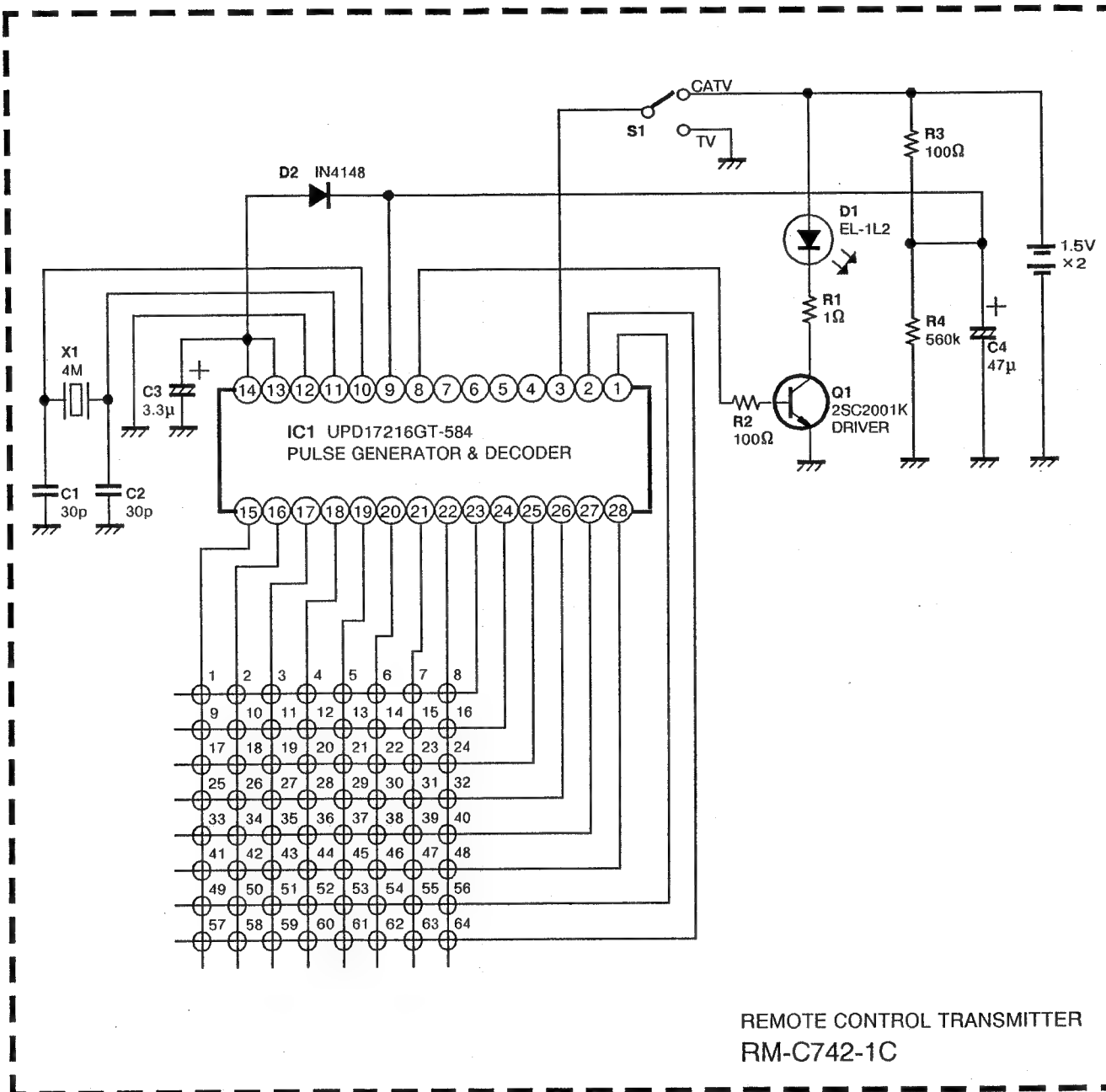
MODE	BAND	CHANNEL	TUNER
TV	CATV	REAL DISP.	BAND
	○	VL W+35 71 W+36 72 W+37 73 W+38 74 W+39 75 W+40 76 W+41 77 W+42 78 W+43 79 W+44 80 W+45 81 W+46 82 W+47 83 W+48 84 W+49 85 W+50 86 W+51 87 W+52 88 W+53 89 W+54 90 W+55 91 W+56 92 W+57 93 W+58 94 W+59 100 W+60 101 W+61 102 W+62 103 W+63 104 W+64 105 W+65 106 W+66 107 W+67 108 W+68 109 W+69 110 W+70 111 W+71 112 W+72 113 W+73 114 W+74 115 W+75 116 W+76 117 W+77 118 W+78 119 W+79 120 W+80 121 W+81 122 W+82 123 W+83 124 W+84 125	IV
	○	SUB MID A-8 01 A-4 96 A-3 97 A-2 98 A-1 99	I
○	×	UHF 14 59	IV
TOTAL 180CH VHF 124CH UHF 56CH			
NOTE: TO RECEIVE THE SUBSCRIPTION OR PREMIUM PROGRAMMING FROM CERTAIN CABLE COMPANIES, SPECIAL ADAPTERS MAY BE REQUIRED.			

MODE	BAND	CHANNEL	TUNER
TV	CATV	REAL DISP.	BAND
○	○	VL 02 03 04 05 06 07	I
	○	VH 08 09 10 11 12 13	II
	○	MID A 14 B 15 C 16 D 17 E 18 F 19 G 20 H 21 I 22	I
	○	SUPER J 23 K 24 L 25 M 26 N 27 O 28 P 29 Q 30 R 31 S 32 T 33 U 34 V 35 W 36	II
×	○	W+1 37 W+2 38 W+3 39 W+4 40 W+5 41 W+6 42 W+7 43 W+8 44 W+9 45 W+10 46 W+11 47 W+12 48 W+13 49 W+14 50 W+15 51 W+16 52 W+17 53 W+18 54 W+19 55 W+20 56 W+21 57 W+22 58 W+23 59 W+24 60 W+25 61 W+26 62 W+27 63 W+28 64	III
	○	HYPER W+29 65 W+30 66 W+31 67 W+32 68 W+33 69 W+34 70	IV

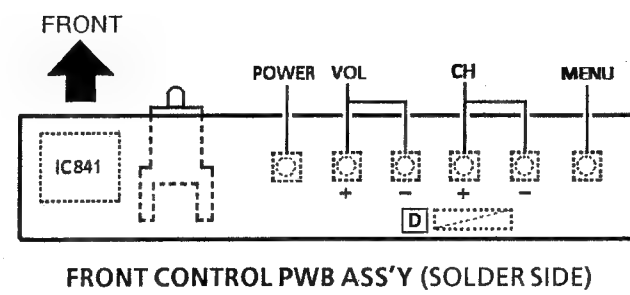
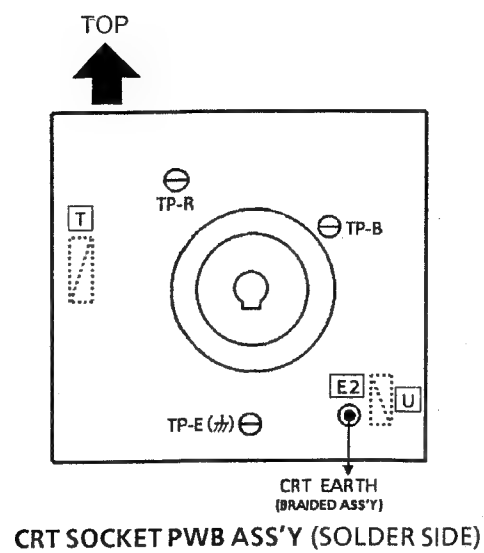
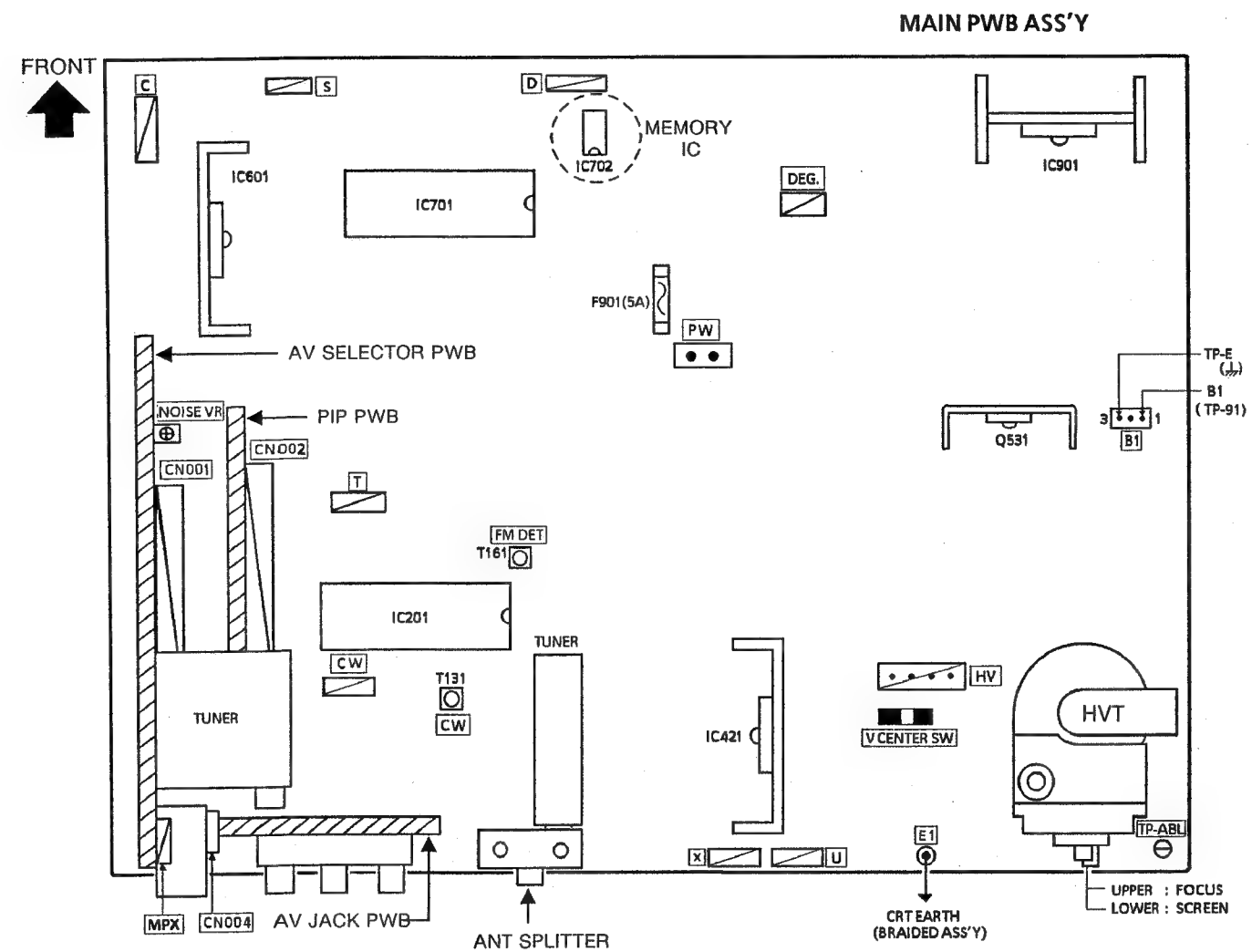
MODE	BAND	CHANNEL	TUNER
TV	CATV	REAL DISP.	BAND
	○	VL W+35 71 W+36 72 W+37 73 W+38 74 W+39 75 W+40 76 W+41 77 W+42 78 W+43 79 W+44 80 W+45 81 W+46 82 W+47 83 W+48 84 W+49 85 W+50 86 W+51 87 W+52 88 W+53 89 W+54 90 W+55 91 W+56 92 W+57 93 W+58 94 W+59 100 W+60 101 W+61 102 W+62 103 W+63 104 W+64 105 W+65 106 W+66 107 W+67 108 W+68 109 W+69 110 W+70 111 W+71 112 W+72 113 W+73 114 W+74 115 W+75 116 W+76 117 W+77 118 W+78 119 W+79 120 W+80 121 W+81 122 W+82 123 W+83 124 W+84 125	IV
	○	SUB MID A-8 01 A-4 96 A-3 97 A-2 98 A-1 99	I
○	×	UHF 14 59	IV
TOTAL 180CH VHF 124CH UHF 56CH			
NOTE: TO RECEIVE THE SUBSCRIPTION OR PREMIUM PROGRAMMING FROM CERTAIN CABLE COMPANIES, SPECIAL ADAPTERS MAY BE REQUIRED.			

REMOTE CONTROL TRANSMITTER CIRCUIT DIAGRAM

[RM-C742-1C]



MAIN PARTS LOCATION AND ALIGNMENT LOCATION

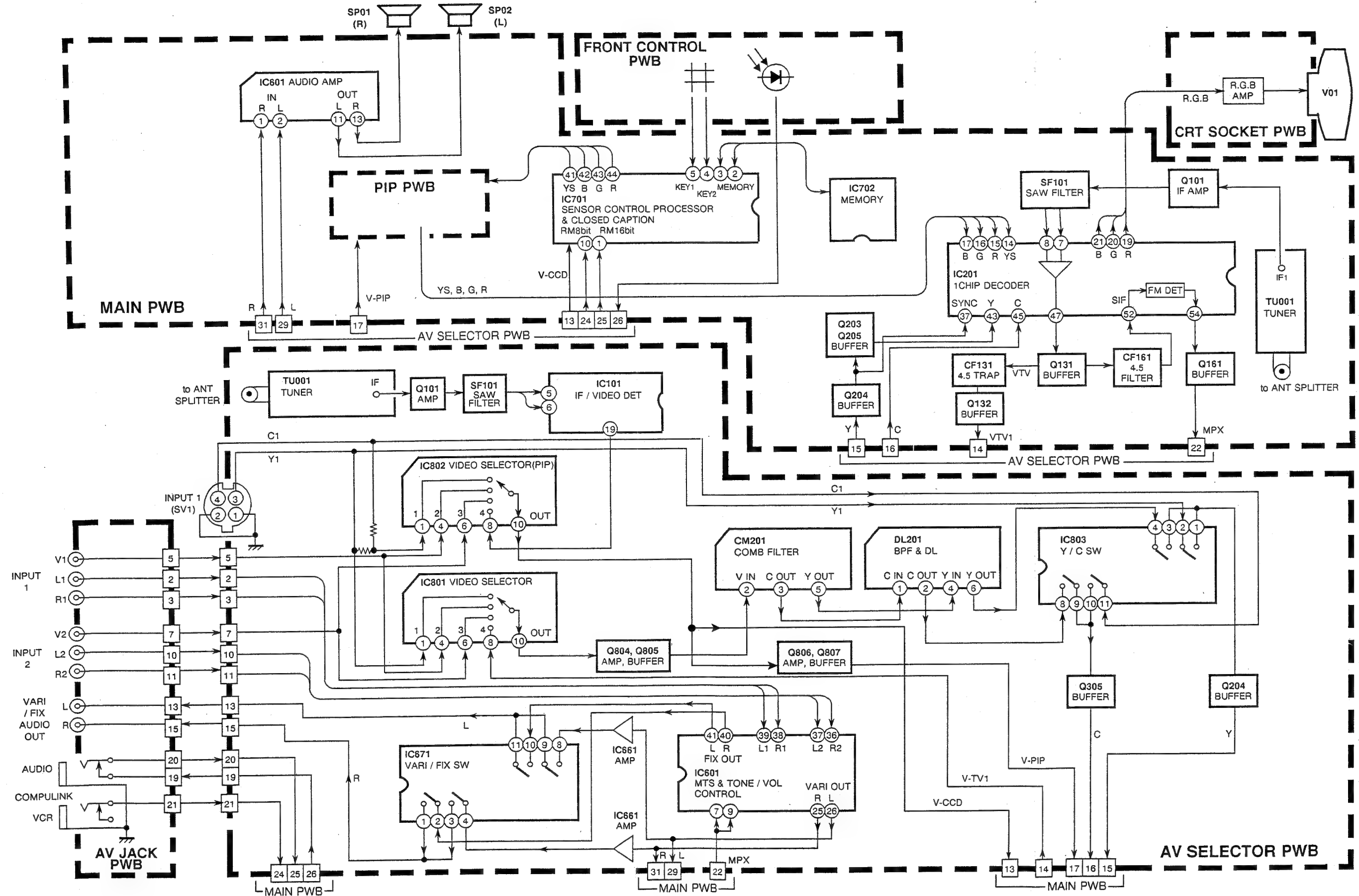


WIRING LIST

P.W.B. or PART NAME	CONNECTOR NAME	WIRE	CONNECTOR NAME	P.W.B. or PART NAME
MAIN PWB ASS'Y	D	↔	D	FRONT CONTROL PWB ASS'Y
MAIN PWB ASS'Y	T	↔	T	CRT SOCKET PWB ASS'Y
MAIN PWB ASS'Y	U	↔	U	CRT SOCKET PWB ASS'Y
MAIN PWB ASS'Y	H/V	↔	WIRE	DEF. YOKE
MAIN PWB ASS'Y	DEG	↔	WIRE	DEG. COIL
MAIN PWB ASS'Y	PW	↔	WIRE	POWER CORD
MAIN PWB ASS'Y	S	↔	WIRE	SPEAKER (L/R)
MAIN PWB ASS'Y	E1 CRT EARTH	↔	EARTH WIRE	CRT (BRAIDED ASS'Y)
CRT SOCKET PWB ASS'Y	E2 CRT EARTH	↔	EARTH WIRE	CRT (BRAIDED ASS'Y)

● NOTE :Refer to Main Parts and Alignment Locations for detailed connector positions.

BLOCK DIAGRAM



CIRCUIT DIAGRAMS AND PWB PATTERNS

AV SELECTOR PWB and AV JACK PWB CIRCUIT DIAGRAMS

This schematic diagram is applicable to both (US) and (CA) models.

As for the parts (marked by *) in the diagram, refer to the difference list (also marked by * for the parts).

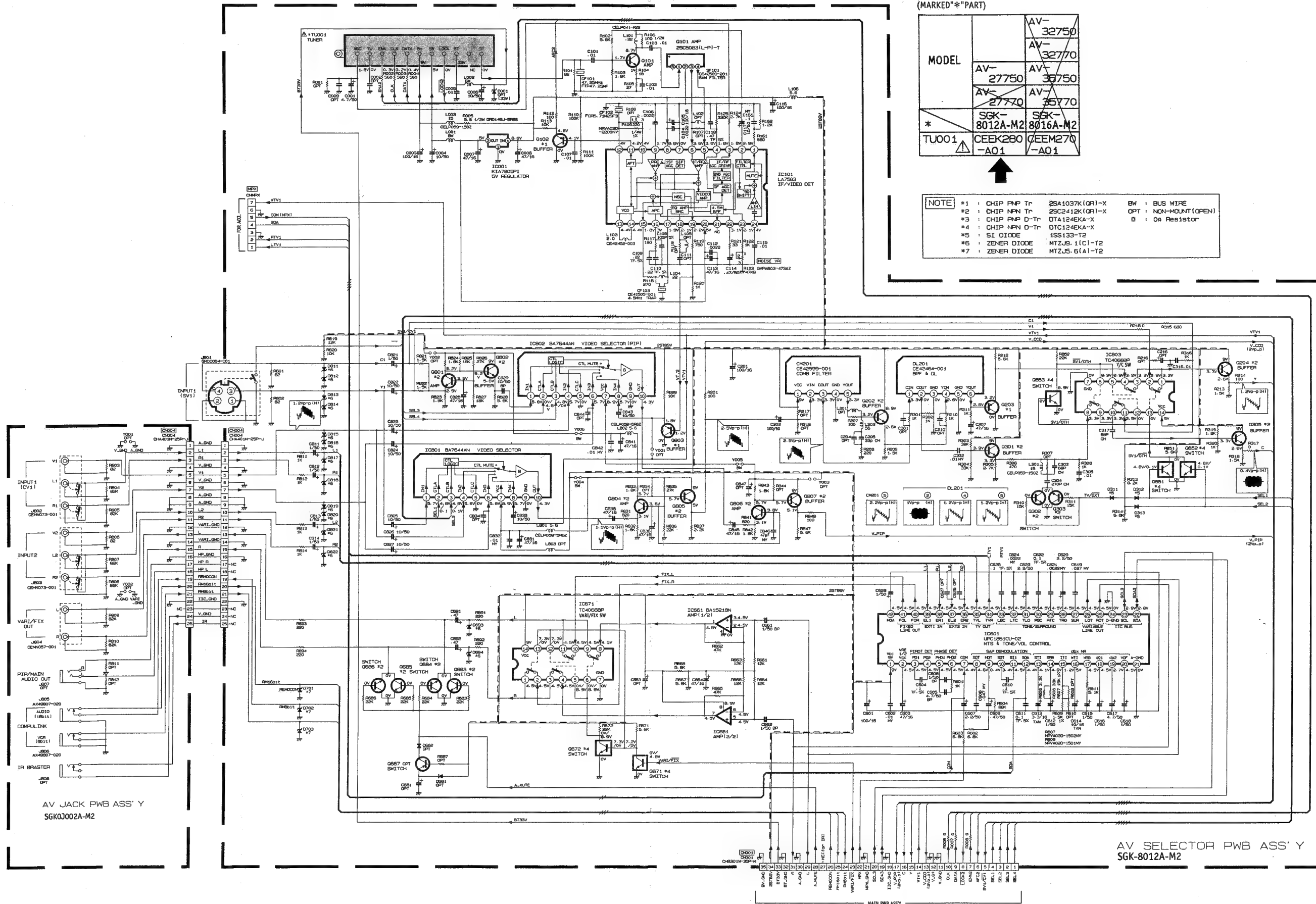
Refer to the following PWB pattern. : AV SELECTOR PWB PATTERN page 2-17~2-18.

AV JACK PWB PATTERN page 2-22.

DIFFERENCE LIST (MARKED "*" PART)

MODEL	AV-	AV-
	32750	32770
	27750	35750
	27770	35770
	SGK-8012A-M2	SGK-8016A-M2
	CEEK280	CEEM270
	-A01	-A01

NOTE	#1	#2	#3	#4	#5	#6	#7	
	CHIP RMP Tr	2SA1037K (GR1-X)	2SC2412K (GR1-X)	DTA124KA-X	ISS133-T2	MTZJ5.1 (C)-T2	MTZJ5.6 (A)-T2	SW : BUS WIRE
	CHIP RMP D-Tr	2SA1037K (GR1-X)	2SC2412K (GR1-X)	DTA124KA-X	ISS133-T2	MTZJ5.1 (C)-T2	MTZJ5.6 (A)-T2	OPT : NON-MOUNT (OPEN)
	CHIP RMP D-Tr	2SA1037K (GR1-X)	2SC2412K (GR1-X)	DTA124KA-X	ISS133-T2	MTZJ5.1 (C)-T2	MTZJ5.6 (A)-T2	0 : 0Ω Resistor
	SI DIODE	ISS133-T2	ISS133-T2	ISS133-T2	ISS133-T2	ISS133-T2	ISS133-T2	
	ZENER DIODE	MTZJ5.1 (C)-T2	MTZJ5.1 (C)-T2	MTZJ5.1 (C)-T2	MTZJ5.1 (C)-T2	MTZJ5.1 (C)-T2	MTZJ5.1 (C)-T2	
	ZENER DIODE	MTZJ5.6 (A)-T2	MTZJ5.6 (A)-T2	MTZJ5.6 (A)-T2	MTZJ5.6 (A)-T2	MTZJ5.6 (A)-T2	MTZJ5.6 (A)-T2	

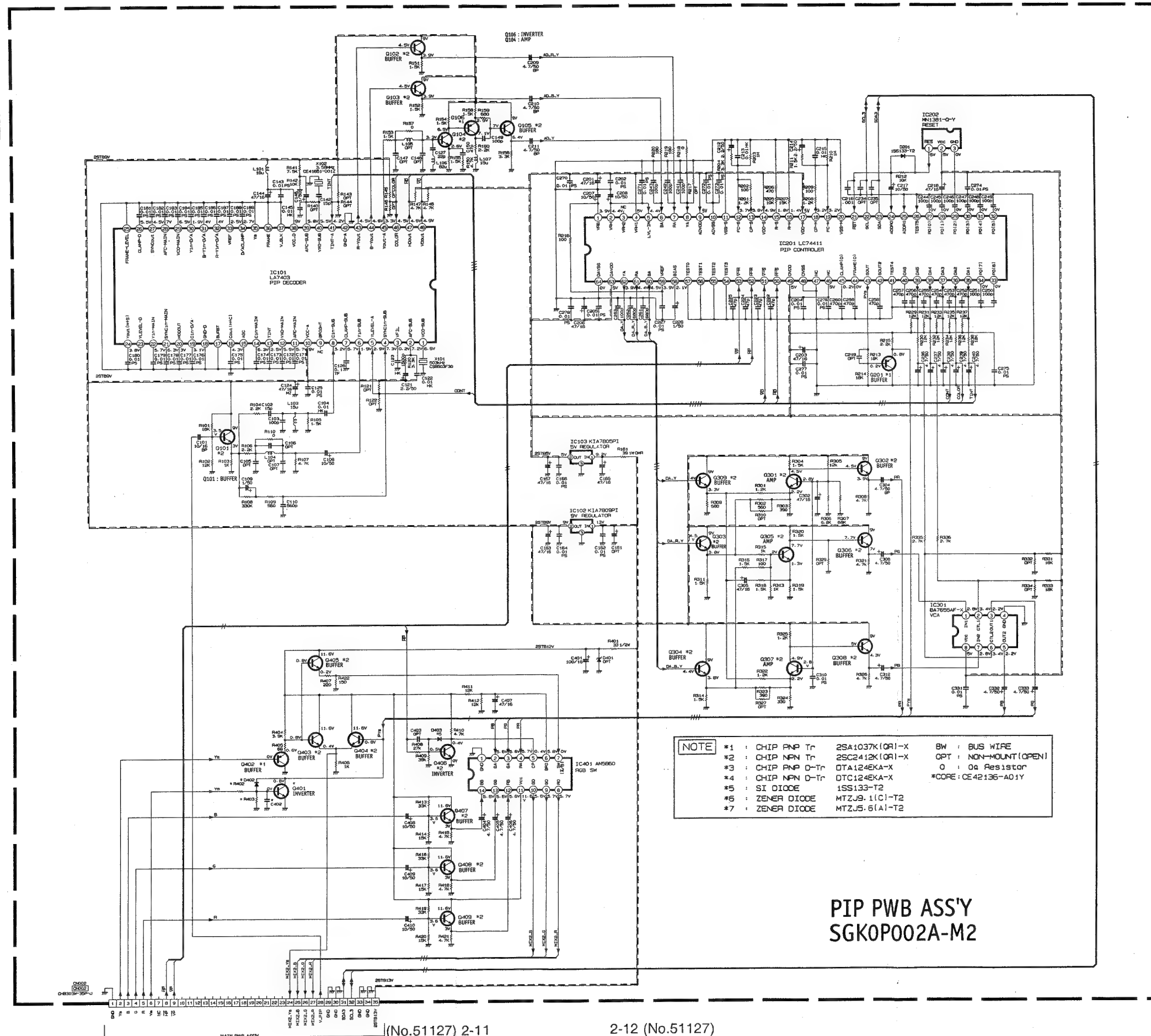


AV JACK PWB ASS'Y
SGK03002A-M2

AV SELECTOR PWB ASS'Y
SGK-8012A-M2

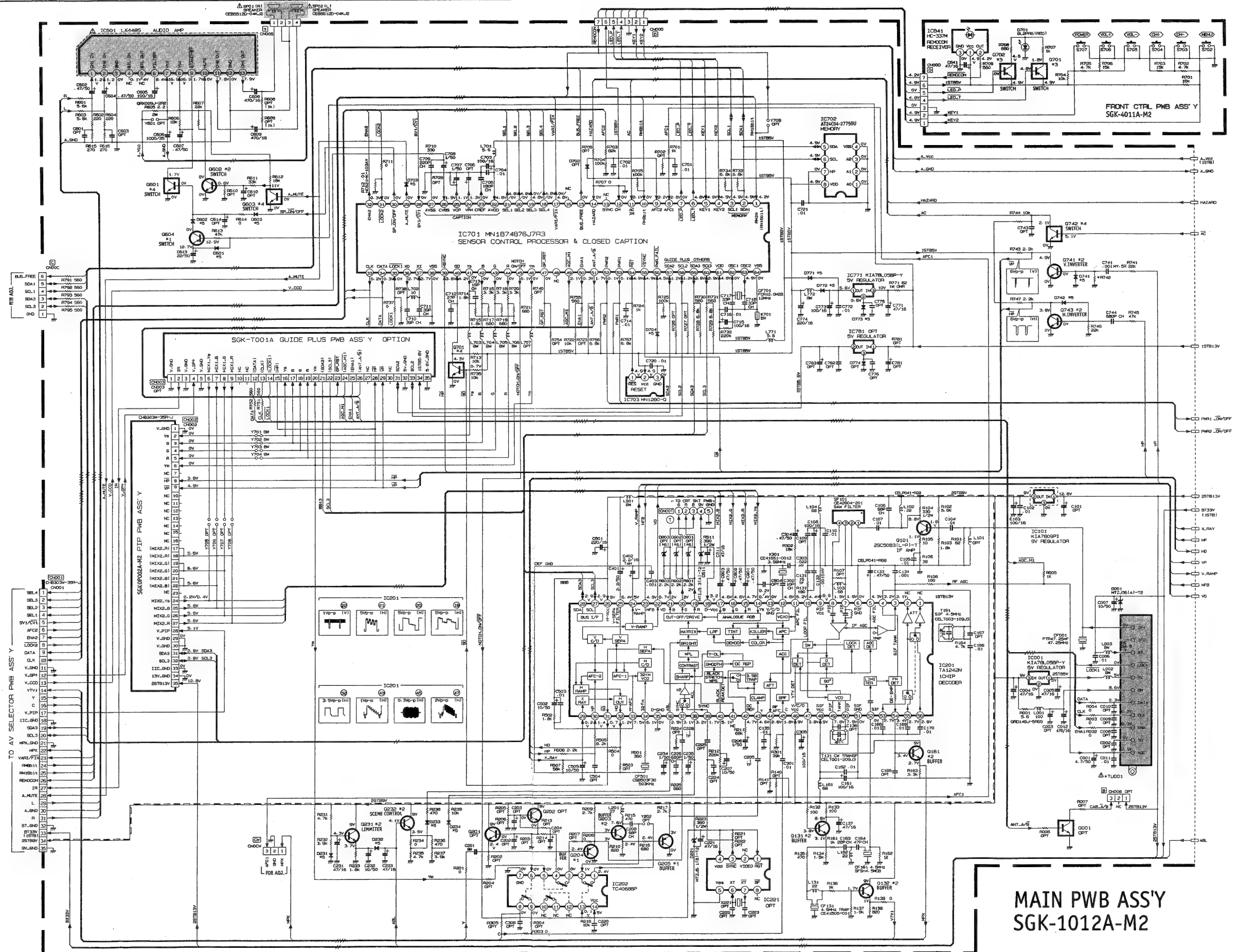
Refer to the following PWB pattern. : PIP PWB PATTERN page 2-21.

* \	SGK 0P001A-M2	SGK 0P001B-M2	SGK 0P002A-M2
Q401	*2	*2	OPTION
D402	*5	*5	OPTION
R402	27K	27K	OPTION
R403	39K	39K	OPTION
C402	82p	82p	OPTION



PIP PWB ASS'Y
SGK0P002A-M2

MAIN PWB, FRONT CONTROL PWB, and CRT SOCKET PWB CIRCUIT DIAGRAMS



MAIN PWB ASS'Y

DIFFERENCES LIST (P2-13-P2-14)
(MARKED "*" PART)

MODEL	AV-27750	AV-32750	AV-35750
* SGK-1012A-M2	SGK-1012A-M2	SGK-1012A-M2	SGK-1012A-M2
TU001	CEEK280-A01	CEEK270-A01	CEEK270-A01
R742	8.2K	10K	10K

DIFFERENCES LIST (P2-15-P2-16)
(MARKED "*" PART)

MODEL	AV-27730	AV-27750	AV-27770	AV-27790
* SGK-1011A-M2	SGK-1011A-M2	SGK-1012A-M2	SGK-1013A-M2	SGK-1014A-M2
R423	QFZ0117	QFZ0117	QFZ0117	QFZ0117
C532	QFZ0117	QFZ0117	QFZ0117	QFZ0117
L591	QFZ0117	QFZ0117	QFZ0117	QFZ0117
R557	QFZ0117	QFZ0117	QFZ0117	QFZ0117
T522	CJ28333	CJ28333	CJ28312	CJ28312
TH901	CEK0007	CEK0007	CEK0007	CEK0007
C913	1000/10	1000/10	1000/10	1000/10
C919	OPT	OPT	OPT	QFF32GK
C920	OPT	OPT	OPT	QC20122
D910	OPT	OPT	OPT	EG1A-T3
R902	8.2K	8.2K	8.2K	10K
R915	OPT	OPT	OPT	QF6039U
R916	OPT	OPT	OPT	QF6039U
T901	CETS024	CETS024	CETS024	CETS063

NOTE

- *1 : CHIP PNP Tr 2SA1037K(OR)-X BW : BUS WIRE
- *2 : CHIP NPN Tr 2SC2412K(OR)-X OPT : NON-MOUNT (OPEN)
- *3 : CHIP PNP D-Tr DTA124EKA-X 0 : 0Ω Resistor
- *4 : CHIP NPN D-Tr DTC124EKA-X
- *5 : SI DIODE 1SS133-T2
- *6 : ZENER DIODE MTZJ5.1(C)-T2
- *7 : ZENER DIODE MTZJ5.6(A)-T2

Refer to the following PWB pattern : MAIN PWB PATTERN page 2-19, 2-20, FRONT CONTROL PWB PATTERN page 2-22, CRT SOCKET PWB PATTERN page 2-23.

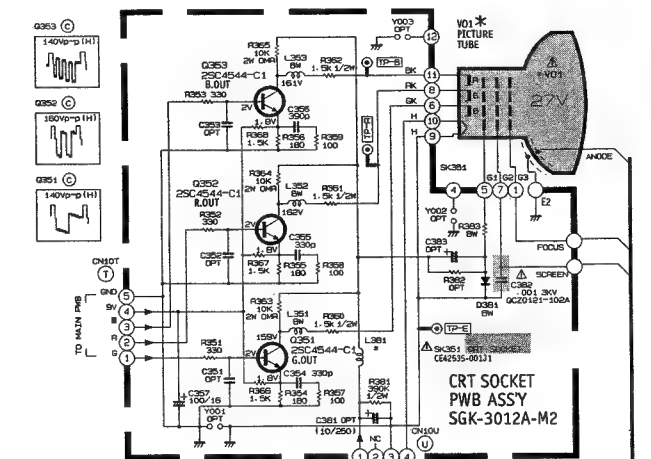
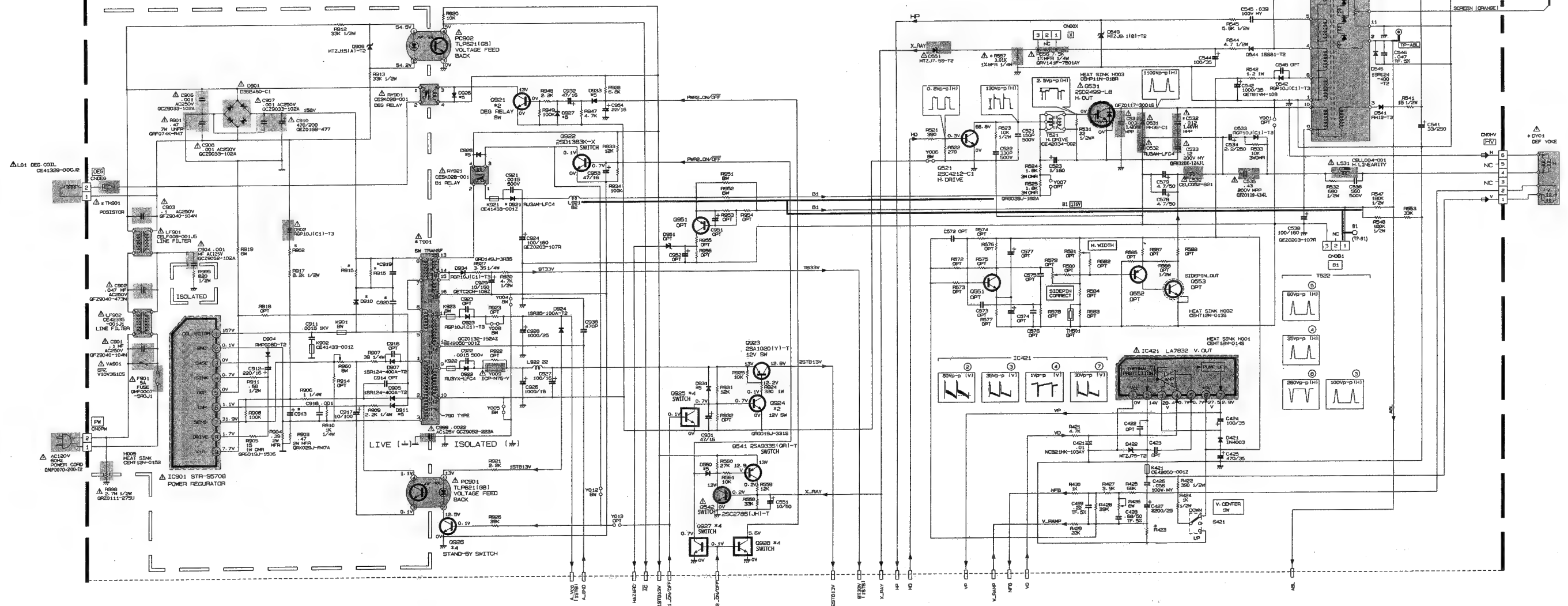
CRT SOCKET PWB ASS'Y

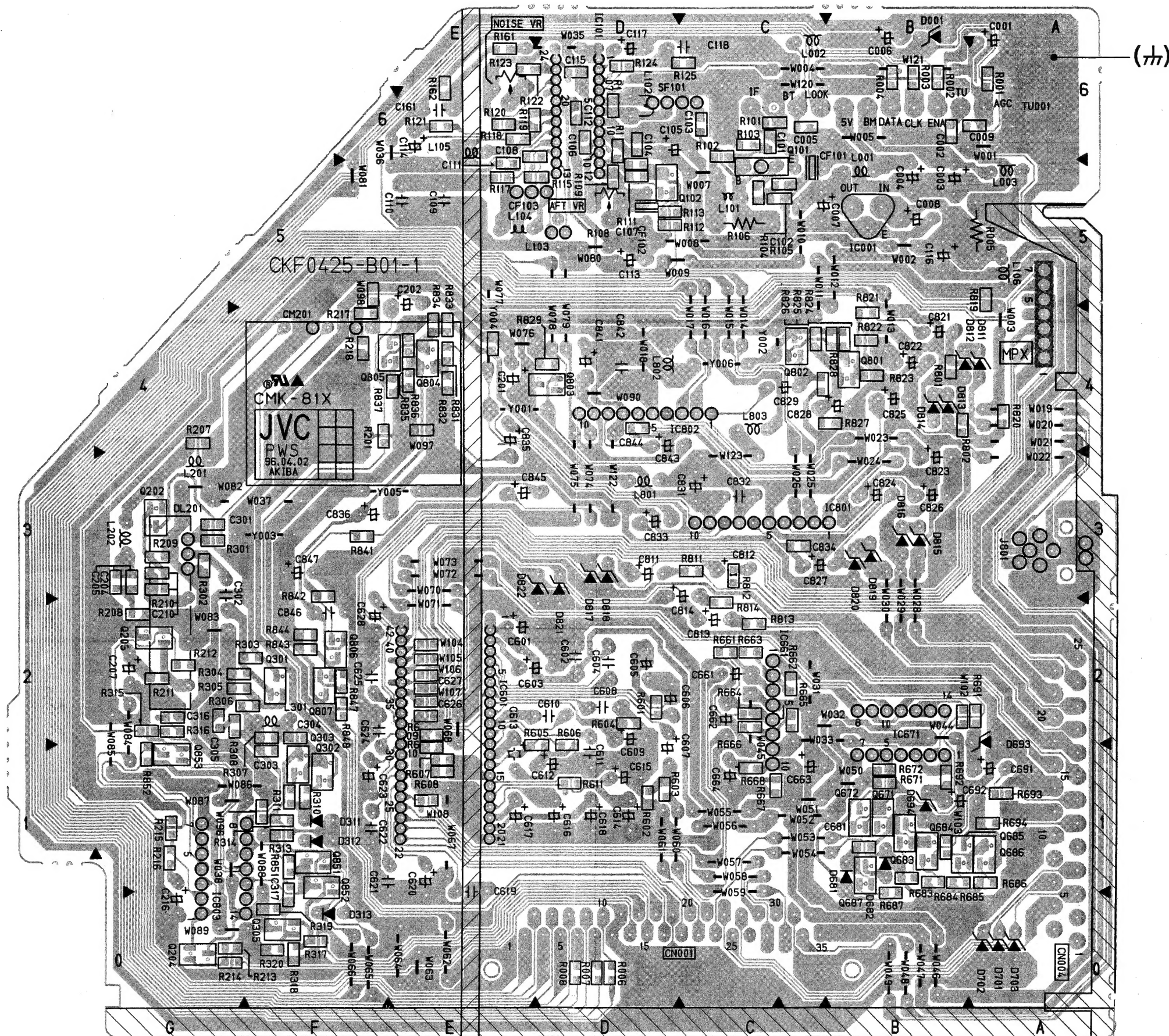
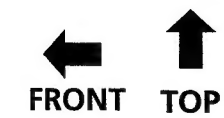
DIFFERENCES LIST (P2-16)
(MARKED "*" PART)

MODEL	AV-27750	AV-27770
* SGK-3011A-M2	SGK-3011A-M2	SGK-3012A-M2
L381	CELP055	CELP055

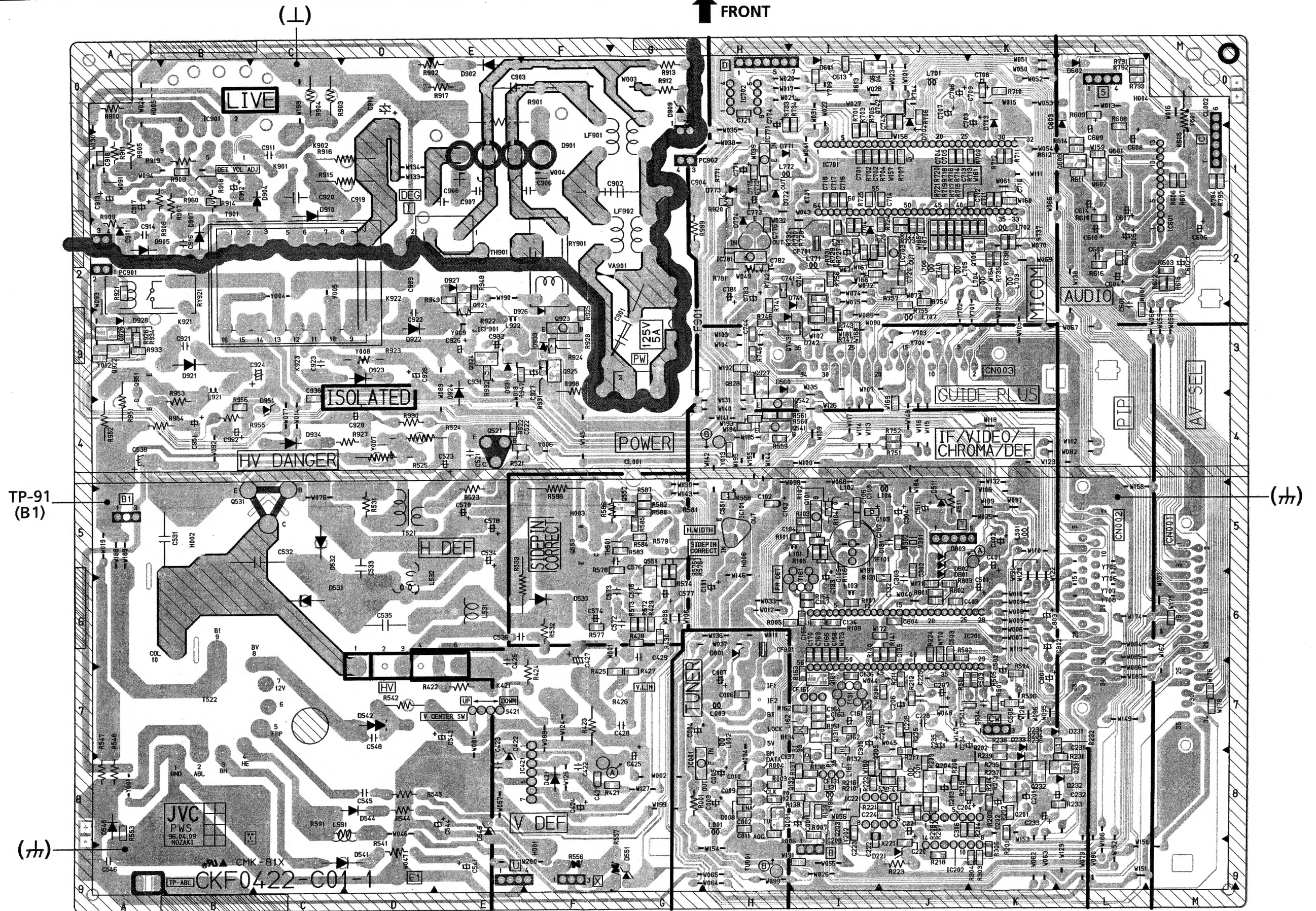
DIFFERENCES LIST (P2-16)
(MARKED "*" PART)

MODEL	AV-27730	AV-27770
* A68ADT25X01	A68ADT25X01	A68KR58X(D)
VO1	Within PICTURE TUBE	CE20255-ODE

MAIN PWB ASS'Y
SGK-1012A-M2



 **FRONT**

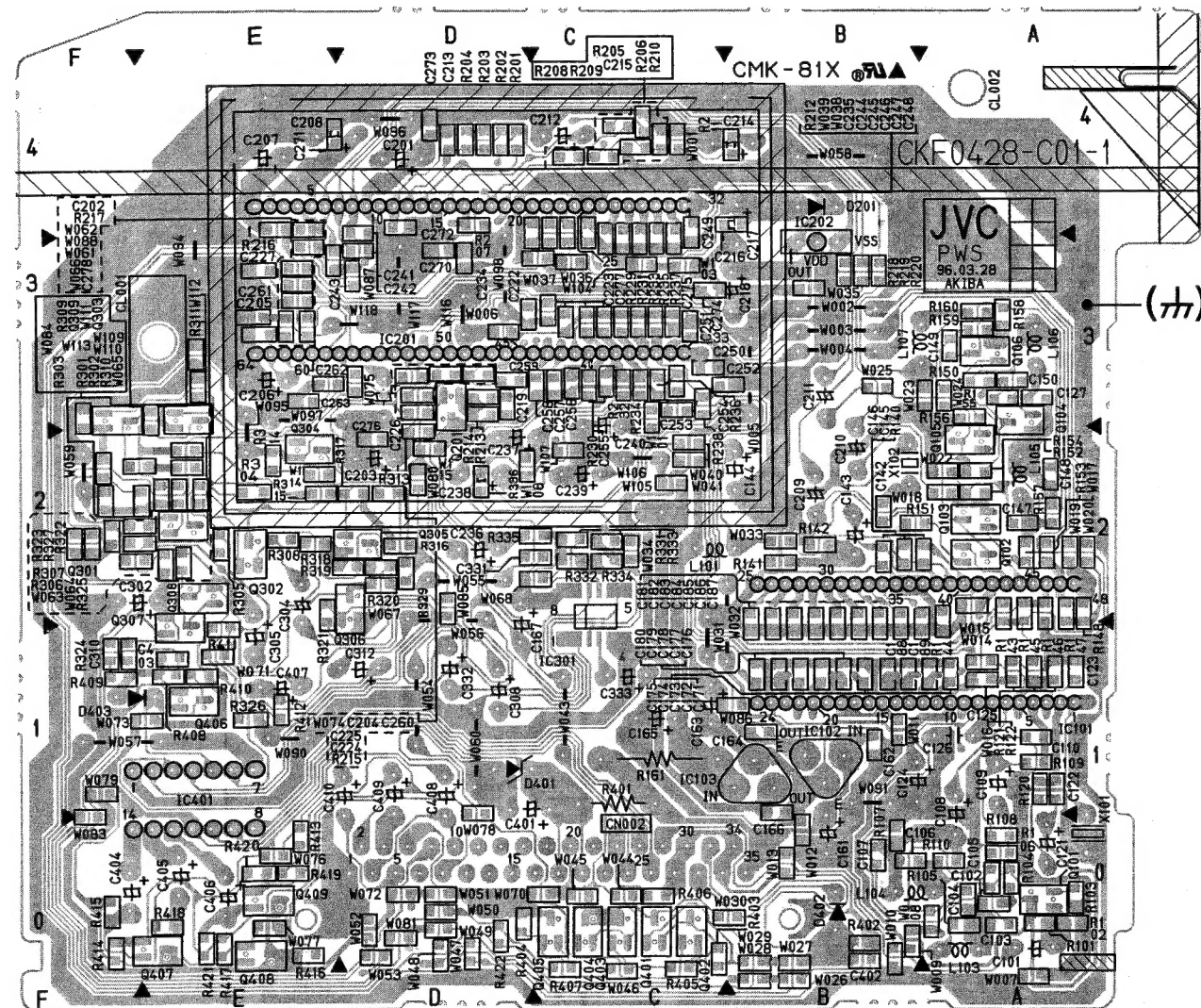


PIP PWB PATTERN

[SGK0P002A-M2]

(Magnification Rate 110%)

← FRONT
↑ TOP

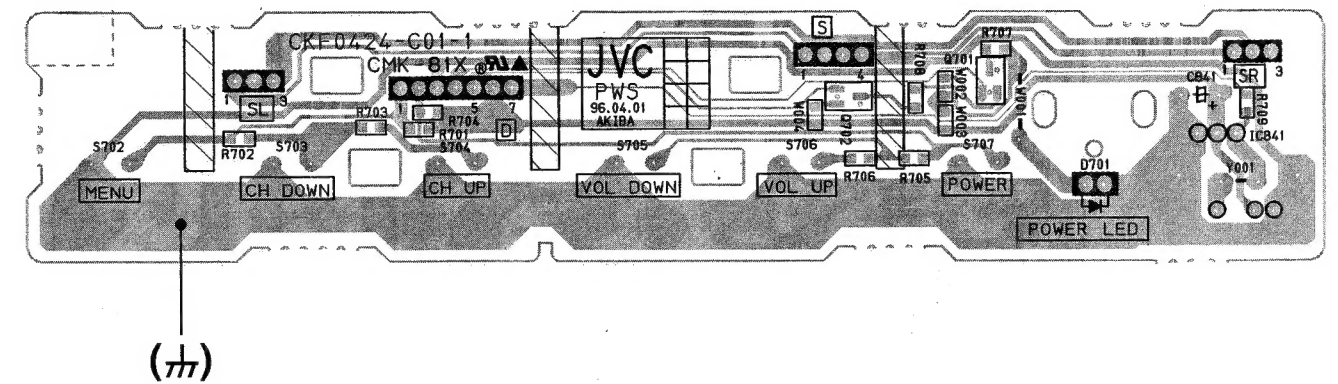


FRONT CONTROL PWB PATTERN

[SGK-4011A-M2]

(Magnification Rate 100%)

↓ FRONT

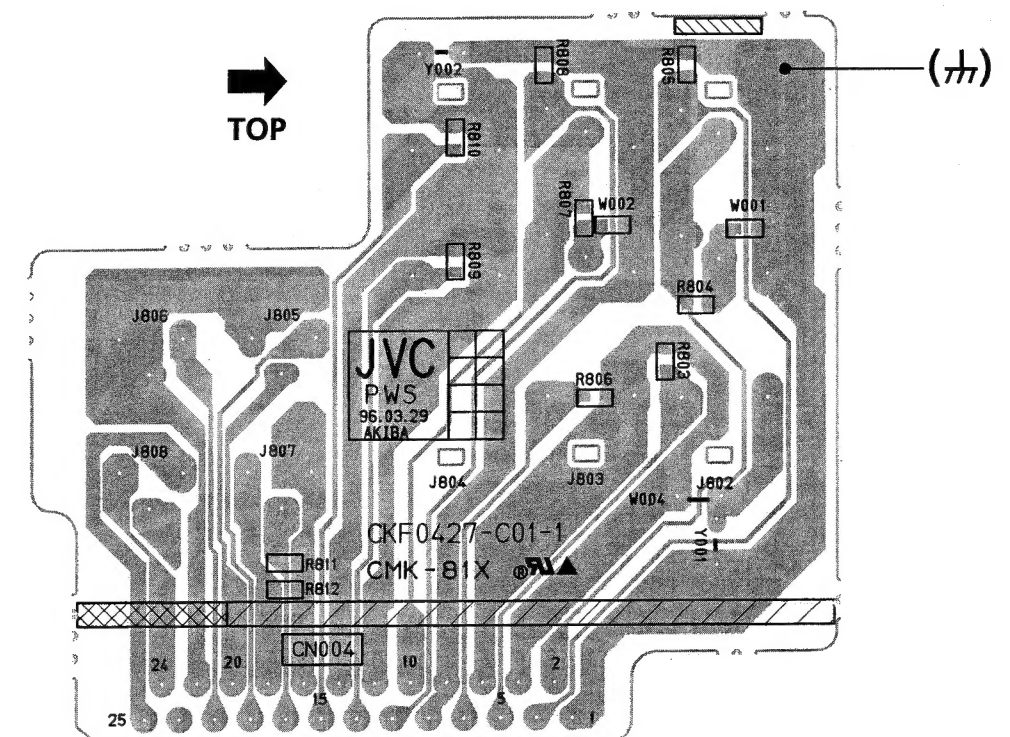


AV JACK PWB PATTERN

[SGK0J002A-M2]

(Magnification Rate 120%)

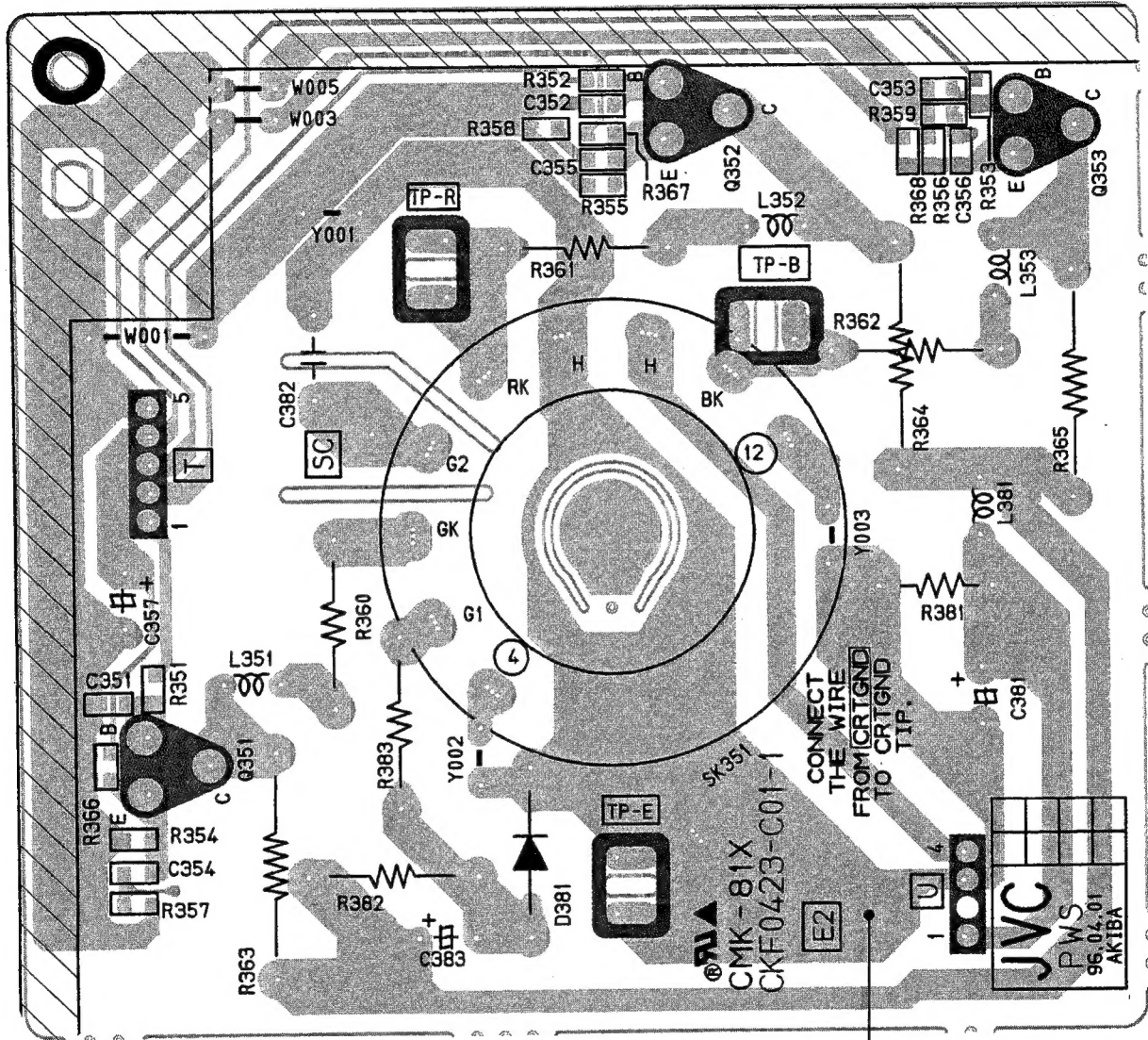
→ TOP



CRT SOCKET PWB PATTERN

[SGK-3012A-M2]

(Magnification Rate 160%)



(77)